DOCUMENT RESUME

ED 199 117 SO 013 039

TITLE Population Education in the South Pacific. Report of a Sub-Regional Workshop (Suva, Fiji, October 1-12, 1979).

INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Bangkok (Thailand). Regional Office for Education in Asia and Oceania.

PUB DATE 80

NOTE 171p.

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.

DESCRIPTORS Adult Education; *Comparative Education; Curriculum Development; *Educational Needs; *Educational Practices; Elementary Secondary Education; Foreign Countries; Futures (of Society); *Population Education

IDENTIFIERS Fiji; Papua New Guinea; Solomon Islands; Tonga

ABSTRACT

The governments of Fiji, Papua New Guinea, Solomon Islands, and Tonga participated in a workshop designed to stimulate interest and understanding of population education and help the participating countries write proposals for national population education programs for financial and technical support from UNESCO and other agencies. This report is arranged in four parts. Part one discusses curriculum development in population education in each of the four participating countries. The general aims and content of population education are discussed for each country. The participants also discussed the various teaching approaches for introducing population education. There was general agreement that the integration/infusion approach met their needs best. Part two presents an assessment of needs and draft plans for population education in each country. In all of the countries new curricula need to be developed and teachers need to be trained. In Fiji there is also a need to make people aware that family planning is not population education. In Papua New Guinea teachers need to be made aware of the need for population education before an in-school program is introduced. Because population education is a new phenomenon in Tonga, there is a need to orient the whole population toward population awareness. In the Solomon Islands there is a need for assistance in the assessment of the target group's knowledge and attitudes in relation to population education. Part three contains country reports. Each country discusses its population situation and characteristics and its status of population education. Participant lists, the workshop agenda, welcoming and opening addresses, and remarks are included in the apprendices, part four of the report. (Author/RM)

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Population Education Programme Service

ED199117

Population education in the South Pacific

Report of a Sub-Regional Workshop
Suva, Fiji, 1-12 October 1979

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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UNESCO REGIONAL OFFICE FOR EDUCATION IN ASIA AND OCEANIA
BANGKOK, 1980

DEC 4 1980

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Published by the
Unesco Regional Office for Education in Asia and Oceania
P.O.Box 1425, Bangkok G.P.O., Bangkok, Thailand

Printed in Thailand

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BKP/80/M/324-500

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INTRODUCTION

The Sub-Regional Seminar-Workshop on Population Education was organized jointly by the Unesco Regional Office for Education in Asia and Oceania, Bangkok, the United Nations Fund for Population Activities (UNFPA) office in Suva, and the Institute of Education of the University of the South Pacific from 1 to 12 October 1979.

This Seminar-Workshop was organized to meet the felt needs of Governments of Fiji, Kiribati, Papua New Guinea, Solomon Islands and Tonga. These countries recognized these needs as a result of their discussions with the Unesco Population Education Mobile Team which, at the request of UNFPA Co-ordinator, Suva, undertook an exploratory mission to the South Pacific sub-region in 1978.

Objectives

The Seminar-Workshop was organized to implement the preparatory project no. RAS/79/P04 especially designed for the promotion of population education activities in the South Pacific region. The main purposes of the Seminar-Workshop, however, were to stimulate further interest and understanding of population education and to assist the participating countries to evolve proposals for national population education programmes for financial and technical support from UNFPA and Unesco. The specific objectives of the activity were to:

1. assess the status and needs in population education of the participating countries;
2. stimulate further interest and understanding about population education;
3. develop plans and formulate national projects in population education for UNFPA's assistance; and
4. develop sample curriculum in population education for each of the participating countries.

Organization and structure of the Seminar-Workshop

To accomplish the objectives, the Seminar-Workshop was so structured that it provided opportunities to the participants to:

1. exchange inter-country experiences about population programmes;
2. go through the orientation session about various aspects of population education programmes in Asia and Oceania; and develop prototype curricular contents and tentative proposals for introducing population education programmes.

Sub-Regional Seminar-Workshop

A copy of the programme describing in detail the educational activities undertaken for each of these three phases of the Seminar-Workshop is given in Annex III.

Participation

Twenty-two high level education officials from Fiji, Papua New Guinea, Solomon Islands, and Tonga participated in the Seminar-Workshop. These officials are providing or are likely to provide leadership and technical know-how in introducing population education in the formal as well as non-formal education programmes in their respective countries. Four resource persons from the University of the South Pacific contributed in the proceedings of the Seminar-Workshop. A list of participants and resource persons is given in Annex IV.

ORIENTATION TO POPULATION EDUCATION

Orientation sessions commenced with the presentation of country papers on the development of population education programmes in the participating countries. These presentations provided participants with an opportunity to exchange their experiences and information pertaining to population education and related programmes in the South Pacific region. The participants, in their presentation, highlighted specific areas such as population situation, characteristics, status of in-school and out-of-school population education and the problems and issues faced by them in planning and implementing their respective programmes. Copies of the country papers are given in Part III of the report.

Country presentations were followed by a series of lecture-cum-discussion sessions on different aspects of population education programmes. These sessions were conducted by a number of national and international experts. A list of specific topics covered during the orientation session is presented below:

Topics for discussion

1. Orientation to Population Education
2. Demographic Aspects of Population Education - Slide-tape presentation
3. Population Education Programmes in Asia - In-school
4. Population Education Programmes in Asia - Out-of-School
5. Problems and Issues in Population Education
6. Population and Development - A Panel Discussion
   - Population and food
   - Population, health and nutrition
   - Population and environment
   - Population and participation
7. Approaches to Curriculum Development in Population Education in Asia and Oceania
8. Integration of Population Education in Development Programmes for Out-of-School Youth and Adults
9. Guidelines for the Development of Project Proposals

These sessions were invariably followed by group discussions during which various concepts, problems and issues of population education were clarified in order to help the participants to understand the conceptual framework for population education so that they could participate effectively in the forthcoming practical exercises pertaining to curriculum development, assessment of national and regional needs and the development of draft plans for population education programmes for their respective countries.

PART ONE

CURRICULUM DEVELOPMENT

IN

POPULATION EDUCATION

CURRICULUM DEVELOPMENT IN POPULATION EDUCATION

The presentations on the development of curriculum for in-school and out-of-school population education programmes were followed by group discussions during which the general process and modalities for curriculum development in the participating countries were elaborated on. The participants further discussed the approaches and modalities that could be used for introducing population education into the existing and new educational programmes. There was, finally, a general agreement among the participants that the integration/infusion approach would be more suitable for the development of population education curricula in the in-school as well as out-of-school education sectors.

Accepting integration as the general approach, the participating countries undertook a practical exercise to develop general core curricular contents in population education for integration into both the in-school and out-of-school educational programmes.

The countrywise report of draft core curricular contents is presented in the following pages.

FIJI

A. Preamble

Elements of population education already exist in the school curricula in Fiji. There are also many organizations whose activities are in many ways fulfilling the aims of such a programme in the out-of-school sector. Thus the main function of developing curriculum in population education is to identify the areas encompassed by it so that these elements can be readily identified and strengthened in different school subjects.

The main aim of population education in Fiji is to create in individuals, families and communities a critical awareness of the relationships between population, environment and resources, and the quality of life, so that they will be able to take responsibility for community and national development through their informed and rational decisions.

B. General aims

1. To develop an understanding of the dynamics of population growth and distribution.
2. To develop an understanding of the basic needs and other requirements for the full human development.
3. To develop an awareness of the changing environment.
4. To develop an understanding of the potential resources and their utilization.
5. To develop an understanding of human development and reproduction.
6. To develop an understanding of the socio-cultural environment.
7. To increase an awareness of the individual's role and responsibilities for his full personal development and the development of the family, community and the nation.
8. To develop appropriate skills and attitudes for making critical judgement and rational decisions.

C. Content

Core contents for both in-school and out-of-school population education programmes are stated on the following page:

1. Population dynamics

   The following concepts should be developed:

   Population size, composition, structure; growth - birth rate, death rate, migration rate; natural increase and net rate of growth; trends - demographic transitions; distribution - density, urban/rural; forces at work for growth and change - economic, political, and social; use of data for economic planning; skills and sampling population.

2. Basic needs

   Develop an understanding of the relationships of population growth with the availability of clean water, fresh air, food - in particular a balanced diet, and nutrition; clothing and shelter; personal development - affection, care and security; other needs like health, education, employment, and leisure-time activities.

3. The changing environment and population

   Perception of the environment by different groups of people; components of the environment - natural and man-made. Management of the environment - development, conservation, exploitation, pollution, erosion and depletion.

4. Human development and reproduction

   Reproductive organs and reproductive processes; fertility. Sexually transmitted diseases; changes from conception to birth and from birth to maturity. Concepts of family planning and methods of contraception.

5. Resources and population

   Types of resources - human, natural, monetary. Utilization of resources - food production and distribution, sharing of other resources.

6. Socio-cultural environment and population

   Types of families and the roles and relationship within a family; social status and class; social institutions; values and attitudes with regard to population control and economic development; differences in values between ethnic groups; conflict of values between planners and those planned for; decision-making and planning.

7. Role of the individual in population-related problem-solving

   Opportunities for participation in development at various levels i.e. in the family, village, town, and the nation; development of positive attitudes, self-identity and self-discipline for participation in making population-related decisions.

D. Target audience

1. In-school population education

   Children of primary and secondary schools, and teacher training institutes

2. Out-of-school population education

   All out-of-school population, although women and rural youth groups shall constitute the priority clientele

Although the general aims and core contents for in-school and out-of-school population education are the same, there will be differences in emphasis in covering contents while working with in-school children and out-of-school youth and adults. For example, when working with the out-of-school population, the organizers can provide deeper coverage of content items 3, 4, 5, 6 and 7, whereas the school programme will receive in-depth coverage of items 1 and 2 beside the normal teaching of contents under the rest of the curriculum.

PAPUA NEW GUINEA

A. Preamble

Papua New Guinea has five national goals directed at integral human development, equality and participation, national sovereignty and self-reliance, natural resources and preservation of the environment and Papua New Guinea ways. Any population education programme must be directed towards the achievement of these goals.

B. General objectives of a population education programme in PNG

1. To create an awareness of the population situation in the local community, the province, the nation and the world.
2. To develop an understanding of what Papua New Guinea's natural resources are and what resources will be needed to maintain a basic level of quality of life without adversely affecting the environment.
3. To develop an understanding of the interrelationships between population growth and development.
4. To promote traditional values which help to strengthen the family, the community and the nation.
5. To enable all Papua New Guinea to take appropriate action for improving the quality of life.
6. To develop rational decision-making abilities about population matters.

C. Concepts

1. The population situation in PNG

The size of families
The population size of local communities, provinces, the nation
Birth rates, past and present
Death rates, past and present
The distribution of age groups and sexes
The idea of dependency
Migration patterns

a) between provinces
b) from rural to urban areas
c) age of people migrating
d) traditional migration patterns

Population densities

Population growth

a) reasons for the present fast growth
b) comparison of PNG's growth rate with other countries

Collection and recording of population data

a) methods
b) importance of the national census

2. Population and the quality of life

What is 'quality of life'?
What needs do people have?
- basic needs - food, water, clothing, shelter
- social and emotional needs
- special needs for certain groups in the community

  a) pregnant and nursing mothers
  b) young children
  c) unemployed youth

Improving the quality of life for the whole population by:
- increasing the participation of women in all aspects of development
- increasing cash-earning opportunities
- providing education for all
- controlling urbanization
- maintaining good social order in families and communities in rapidly-growing urban and rural areas
- equalizing health services
- maintaining food production and increasing nutrition levels
- conserving the environment

National policies relating to quality of life
- children start school at age 7
- the banning of infant feeding bottles
- protection of wildlife
- resettlement schemes

Traditional values and the quality of life
- children as an insurance of old age
- respect for older people
- the extended family
- sharing of resources amongst the clan group
- breakdown of traditional values in urban areas

How quality of life is related to population growth:
when the population grows rapidly it is difficult to maintain quality of life.
- adults have many dependents to look after and provide for
- pressure on land increases
- health and education services cannot be expanded rapidly enough

- the health of mothers and infants deteriorates
- women are unable to participate equally in development
- social order deteriorates
- unemployment increases
- urban areas face housing shortages

3. Population and food, nutrition and health

More people need more food.
Ways of increasing food production for an expanding population:

a) using more land
b) intensifying the use of cultivable land

Problems associated with attempts to increase food production:

a) development of marginal land often irreversibly damaging to the environment
b) lower yields for greater energy input
c) pollution effects from the use of insecticides and pesticides

Population pressures aggravate food shortages caused by natural disasters:

Population pressures in land-short areas lead to malnutrition:

a) malnutrition increases susceptibility to infection
b) malnutrition affects performance in school
c) malnutrition affects productivity

Population pressures affect the delivery of health services:

a) a large percentage of young children overburdens the delivery of health services

4. Population and the environment

The environment as the provider of man's basic needs
The need to use resources wisely without spoiling the environment too much
The need for assessment of the nation's resource potential so that development plans lead to the wise use of the environment
Man as a changer and spoiler of the environment
Rapid population increases lead to spoiling of the environment, often irreversibly, e.g. cutting down of rain forest
Population pressures in highland regions as a cause of bad soil erosion from hillsides
Rapid, unplanned growth of towns causing water, air and sound pollution

5. Population and planning

What is planning?
Examples of planning:

a) making a garden
b) planning a feast

Planning needs information
Planning involves decision-making
Planning in individual lives
Planning in the family

a) spacing of children
b) number of children
c) budgeting

Techniques of family planning

a) traditional
b) modern

Planning in the community, the province and in the nation to improve the quality of life:

a) the provincial data system and its usefulness
b) the role of provincial planners
c) the National Planning Office

This forms the basic content of the population education programme. However, there will be different emphases on this content in the in-school and out-of-school programmes depending on the target audience.

SOLOMON ISLANDS

A. Preamble

This report represents the combined efforts of the members of the Solomon Islands delegation to the Unesco-UNFPA Sub-Regional Seminar Workshop on Population Education. In the following sections the delegation has attempted to provide a working document for curriculum development of population education programmes in both the in-school and out-of-school sectors. It is intended that considerable examination, discussion, and re-structuring should take place before possible adoption of the contents of the report.

IN-SCHOOL POPULATION EDUCATION PROGRAMME

B. General aims of population education

1. To develop an understanding of the factors causing rapid population growth and urbanization, and to appreciate the interrelationships between population change and quality of life.
2. To develop responsible attitudes towards population-related issues and to act in accordance with such attitudes.
3. To develop an understanding of the national population policies and programmes and to contribute towards their attainment.
4. To develop an understanding of the relationship between population change and availability of resources.

C. Objectives of the in-school programme

1. Primary level
   a) To enable the child to understand the relationship of man to his environment.
   b) To enable the child to understand what is meant by population growth and the effect that this growth can have on his future way of life.
2. Secondary level
   a) To enable the child to understand the relationship of man to his environment.
   b) To enable the child to understand what is meant by population growth and the effect that this growth can have on his future way of life.

c) To present the child with examples of population situations in the world.

d) To present the child with examples of acceptable population growth resulting in the maintenance and/or improvement of the quality of life.

e) To make the child aware of the strategies available for curbing population growth.

3. Tertiary level with special reference to teacher training

a) To make teachers fully conversant with the objectives of population education in the Solomon Islands.

b) To develop awareness and understanding of:

(1) the history of population education
(2) current problems and issues in population growth
(3) programmes implemented in other countries and the reasons for varying degrees of success
(4) country's values system, customs, and religious beliefs
(5) the fact that population education lies primarily in the affective domain i.e. values and attitudes

c) To enable the teacher trainee to develop a sound methodology for implementing the population education programmes currently being developed or used in his own country.

d) To develop in the trainee evaluative skills in order to enable him to:

(1) evaluate the success or otherwise of his population education lesson(s).

(2) suggest modifications, re-structuring or additions to the curriculum materials being used in the population education area.

D. Generalizations and concepts

1. Primary level

a) History of man's development

b) Man's interaction with his environment produces change

c) Cultural differences can occur as a result of this man-environment relationship

d) Population growth affects food and other resources

e) Pollution is the result of man's insensitivity to his environment

f) Conservation is necessary for the survival of both man and the environment

2. Secondary level

a) History of man's development

b) Man's interaction with his environment produces change

c) Cultural differences can occur as a result of this man-environment relationship

d) Population growth affects food and other resources

e) Pollution is the result of man's insensitivity to his environment

f) Conservation is necessary for the survival of both man and the environment

g) Issues in population growth

h) The Third World

i) The Developed World

j) Quality of life

k) Family planning methods

l) Distribution of resources

m) Family size affects quality of life

n) Population education programmes (S.I.)

3. Tertiary level

a) All concepts from primary and secondary levels to be taught as part of the teacher's population education programmes.

b) Population education history and status

c) Population growth issues

d) Problems encountered in the implementation of population education programmes

e) Population education lies primarily in the affective domain

f) Sound methodology is important

g) Sound evaluative instruments are important

E. Content

1. Primary level

Social studies

		Concepts dealt with
1) S.I. History	A. Stages of Man's Development	a)
2) S.I. Geography	E. Man's Impact on World Resources	b), d)
3) S.I. Major Industries	B. Ecology	e), f)
4) S.I. Minor Industries	E. Man's Impact on World Resources	b), d) e), f)
5) S.I. Administration	F. Urban Studies	a)
	G. Rural Studies	a)
	H. Factors Affecting the Provision of Community Services	d)
6) S.I. Honiara (Urban)	D. Family Studies	d), a), c)
	F. Urban Studies	a), f)
	G. Rural Studies	a) to f)
7) Cultural Studies	A. Stages of Man's Development	a)
	C. Cultural Studies	c)

New materials

8) Rural Studies	D. Family Studies	a), c), d)
	G. Rural Studies	a) to f)
	H. Factors Affecting the Efficient Provision of Community Services	d)

Health

Topics in existence	Concepts dealt with
1) Nutrition	d)
2) Hygiene	
3) Sanitation	e)
4) Child Care	
5) First Aid	
6) Safety in the Home	
7) Malaria Prevention	

2. Secondary level

Due to lack of immediate information on secondary curriculum the Solomon Islands delegation was unable

to develop the details of the content in population education to be integrated in different subjects at the secondary level.

3. Tertiary level with special reference to teacher training

All the concepts and generalizations at the tertiary level (D. 3) will be integrated in social studies, professional studies and health education at the primary and secondary teacher training level.

OUT-OF-SCHOOL POPULATION EDUCATION PROGRAMME

A. General objectives

1. To develop an understanding of the factors causing rapid population growth and urbanization, and to appreciate the interrelationships between population change and quality of life.
2. To develop responsible attitudes towards population-related issues and to act in accordance with such attitudes.
3. To develop an understanding of the national population policies and programmes and to contribute towards their attainment.

B. Specific objectives

1. To understand the processes of population growth.
2. To understand the impact of rapid population growth on the quality of life of the individual, family and the nation.
3. To understand the relationship between population growth and socio-economic development.
4. To understand the importance of a balanced environment in relationship to a population.
5. To understand the significance of a desirable family size and its relation to the quality of life, taking into account the cultural belief and traditions of the community.
6. To realize that human behaviour has a direct influence on the social structure and on social change.
7. To change attitudes and develop a sense of responsibility towards the national development.

C. Course content and 'Target Groups'

1. Youth programmes

a) Population growth as it affects youth
b) Family planning programmes in the country
c) Politics of food supply and population
d) Home management and budgeting
e) Marriage as a social institution affecting population change
f) Family relationship
g) Personal hygiene and sexual behaviour
h) Traditional value in relation to a growing population

2. Women's programmes

a) A need for and benefit of family planning programmes
b) Food and nutrition in relation to population
c) Rights of the child in relation to resources
d) Home management and budgeting
e) Food preparation and preservation
f) Child care, for example, breast feeding
g) Family relationship
h) Literacy as a contributing factor to quality of life
i) The proper usage of land to meet the needs of a growing population
j) Status of women

3. Community leaders' education in population education

Local leaders, politicians, church leaders, other leaders

a) Family planning programmes and its contribution to quality of life
b) The awareness of the effect of population growth on the individual and the community
c) Population versus resources
d) Determination of family size based on cultural and moral values of the community
e) The relationship between population, industrial/commercial development and environment

TONGA

A. Preamble

In order to define what the Tongans mean by 'quality of life' there was a need to identify aspects of the Tongan culture which could be attributed to the concept of quality of life. The following could easily be assumed as among the significant cultural aspects affecting the quality of life in Tonga:

1. Respect for authority
2. Respect for seniority
3. Filial duty
4. Sacrifice of the individual's interest in order to serve the group's interest
5. Sharing

These are the bricks which form the foundation of the Tongan society. The mortar which links all these together is the reciprocal nature of the relationship in the society.

This system has worked well in the past with a small-size population but there is an increasing abuse of the system resulting from population pressure. This affects the Tongan quality of life and thus justifies the following, 'Scope and Sequence in Population Education.'

B. Aims

1. To assist the Tongan people, both in and out of school, to understand population issues and factors, such as births, deaths and migration, and their relation to and effects on their quality of life.
2. To provide the Tongan people with the relevant knowledge and skills that would enable them to make desirable decisions about population issues and factors.

C. Objectives

The target population should be able to understand and perform the following at the end of this course:

Knowledge objectives

a) To understand the interaction of the population with the environment and the resultant effects.

b) To understand the relationship between population growth and cultural, social and economic development.

c) To understand the consequence of population density with regard to controlled and uncontrolled population growth.

d) To understand the correlation between human development and physical resources.

e) To understand the relation between population growth and the provision of services.

f) To understand the effects of migration, emigration and urbanization factors and their effects on population changes.

g) To understand the mechanisms, factors and issues related to population control.

Skills objectives

To enable the target population to define, identify, differentiate, assess and evaluate the different factors pertaining to population matters.

D. Target audiences

1. In-school

All children in the formal school system at the primary and higher education levels.

2. Out-of-school

Segregated groups:
a) mothers and daughters
b) fathers and sons

E. Scope and Sequence of Population Education

Content area (Sub-content area)	Generalizations (Subordinate statements)	Topics to be covered in each content area
1. Population and the environment a) Interaction with the environment	1. Man is both part and creator of his environment a) Man's pursuance of his own self-interests can destroy the checks and balances inherent in nature. b) Changes in the physical environment can affect man's cultural, social and economic balances.	1. The eco-system as man's habitat a) Environment study of the following - life cycle - food cycle - water cycle - plant cycle, etc. and man's place in and responsibilities to these life patterns and the counter-effects on his cultural behaviour. b) Conservation issues. c) Impact of population on all the above (pros and cons and alternatives)
b) Population situation	2. Wide open space is traditionally a contributing factor in the physical, emotional, social and cultural well-being of the Tongan. a) Overcrowding is reducing the amount of open space available. b) Planned population growth can control overcrowding.	2. Demography a) Birth rate b) Death rate c) Growth rate d) Population density e) Impact of these facts on people's life (pros and cons and alternatives)
2. Population and resources	1. There is a direct relationship between human and natural resources.	1. Resources What are resources? (Defined by particular culture)

Content area (Sub-content area)	Generalizations (Subordinate statements)	Topics to be covered in each content area
a) Interaction between human and natural resources	a) Man needs adequate natural resources to satisfy both his material and psychological needs. b) Man's values determine his needs and thereby define his resources. c) Over-population can result in over-utilization and irreplaceable loss of physical resources. d) The size of the population affects the individual's share of available resources.	a) Human resources b) Physical resources - especially land and sea c) Relationship between population, land and the sea d) Effects of population growth on resources (pros and cons and alternatives)
	2. Population growth demands a corresponding increase in existing services. a) Employment opportunities often lag behind population growth. b) Services grow much more slowly than population growth. c) Consumer's demands often exceed production.	2. Utilization Study of: a) Economic patterns - including food production and consumption b) Employment opportunities - including labour force, participation rate, rate of dependency c) Production and trade d) Social and public services such as education, health, etc. e) Effects of population growth on all of the above, pros and cons, such as increased demands and malnutrition, and alternatives.

Content area (Sub-content area)	Generalizations (Subordinate statements)	Topics to be covered in each content area
3. Population mobility a) Migration	1. Population distribution is a factor of economic and social opportunities. a) Economic opportunities are highest in urban centres. b) Concentration of population in urban areas creates administrative, economic, social, health and environmental problems. c) Urbanization can deprive the rural areas of needed human and physical development. d) Decentralization of economic and social opportunities can reverse urbanization.	1. Migration a) Push and pull factors b) Decentralization c) Effects of migration (Pros and cons and alternatives)
b) Emigration	2. Migration from one country to another is usually from the developing to the developed world. a) Economic opportunities and modern technology attract migrants from the developing world. b) Heavy migration of productive males results in serious social problems in developing countries. c) Emigration is often a result of over-population.	2. Emigration a) Push and pull factors b) Effects of migration (Pros and cons and alternatives)

Content area (Sub-content area)	Generalizations (Subordinate statements)	Topics to be covered in each content area
	d) Uncontrolled migration can cause ethnic and racial tension in the recipient country.	
4. Population and planning a) The facts of life	1. Procreation is a natural function of human beings. a) Different societies have different perceptions of the procreation functions. b) Attitudes to procreation is affected by sex, age, and cultural values.	1. Attitudes to human reproduction - Female attitudes to reproduction - Male attitudes to reproduction - Effects of attitudes on marriage age, family size, population growth, etc.
b) Family planning	2. Man is a social animal and he interacts with other individuals and groups in accordance with the values of his identity group. 3. Man's quality of life is based on an adequate provision of his basic needs. a) The quality of man's relationship with other groups and individuals can be affected by population size. b) Artificial and natural measures can control family and population size. c) Man's basic needs include adequate food, health, shelter, clothing, security, as well as psychological and spiritual needs. d) Population growth can affect the adequacy of the satisfaction of his basic needs.	2. Family planning a) What is a home? (Defined in terms of provision of appropriate needs) - Food and nutrition - Health and well-being - Houses and clothes - Love and security, etc. b) Home skills - Budgeting - Cooking - Gardening - Birth control (measures, etc.) c) Interaction of all the above a) and b) with population growth. (Pros and cons and alternatives)

The scope and sequence developed above applies to both in-school and out-of-school population education programmes. However, there will be comparatively greater emphasis on the item 'D' of scope and sequence while working with out-of-school youth and adults, whereas the rest of the items (A, B and C) will receive equal emphasis in both in-school and out-of-school programmes.

PART TWO

ASSESSMENT OF NEEDS

AND

DRAFT PLANS

FOR POPULATION EDUCATION

FIJI

I. Assessment of needs

Although certain aspects of population education appear in our programmes, there is a need to give new orientation to population education in Fiji if the recognized broad and specific objectives set for it are to be achieved to a satisfactory level.

Before any effective programmes for population education could be worked out, there is a need to assess the degree and nature of awareness and orientation of what already exists in the way of population education. Stock must also be taken of existing resources in the way of number and type of personnel and curricular and other materials available so that the country's needs in relation to a comprehensive development of population education could be assessed.

The Government is aware to some extent that the population problem exists and it has a policy with regard to population. The Development Plan aims to:

- lower the growth rate of the national population
- provide employment to its growing population (this is now considered to be a basic need)
- reduce the rate of rural-urban migration
- increase food production through the efforts of the Ministry of Agriculture

To improve the quality of life in rural areas, the Government has embarked on plans to provide social facilities such as roads, health centres, schools, water supply and electricity to these areas.

About 25 per cent of the females aged 15-49 were using methods of family planning in 1978. This indicates to some extent that people are aware of the problem.

A. Awareness and orientation

There is need to make people aware that family planning is not population education - that family planning needs to be put and appreciated in the context of population growth and resources.

Orientation and awareness should be provided at two levels:

1. for education officials engaged in national functions (e.g. administrators, curriculum officers, etc.) It is these key personnel who will be required to initiate the programme of the nation and to develop and co-ordinate it in a meaningful way. Therefore, it is of vital importance that they be made fully aware of the programme by as broad an exposure as possible. This can perhaps be done by means of seminars/workshops, inter-country visits, etc., at the regional level.
2. for district level education administrators, teachers and extension workers. Such awareness can be created at the national level through national seminars/ workshops, etc.

The Ministry of Education will play the major role in the orientation and awareness of population education.

B. Curriculum and materials development

1. There is a need to analyse the existing curriculum areas to find out to what extent population concepts have been included and treated in subject areas in primary and secondary schools, teacher training, and out-of-school development programmes.
2. There is a need for a plan to integrate further materials through the development of detailed content of units of study for teachers and pupils and for the development of general teaching aids like slides, films, tapes, visuals and kits in the formal system.
3. There is a need to develop a special programme for the out-of-school population e.g. content materials, films and slides, tapes, radio programmes, posters, leaflets, and comics.
4. There is a need to develop a separate course or unit on population education programmes for teacher training in both pre-service and in-service programmes.
5. There is a need for the preparation of the above materials in the vernacular in the primary and out-of-school sectors.

C. Training of personnel

In order to facilitate the development and implementation of a national programme in population education, training is needed at various levels. In Fiji, due to constraints in the expansion of the civil service, people may have to be seconded to work on this programme or may take on the programme as part of their normal functions. In the latter case, there will be a need to redefine their areas of function.

1. Firstly, there is a need to train people in primary, secondary and teacher training curriculum development in population education. The training could involve some acquaintance with curriculum development processes and some exposure to the type of programmes needed in other developing countries. The training could be in the form of attachments, inter-country visits and brief fellowships.

2. At least one person per major subject area where population education is to be integrated in primary, secondary, teacher training and out-of-school areas needs brief training in curriculum writing. This may comprise of one-month training provided by experts in the field.

3. There is a need to train a small group of teacher trainers who will train other teachers and community workers of the country.

4. There is also a need to train a small group of people who will prepare audio-visual materials.

5. Long-term fellowships to be provided to at least two to three people in population education. This will ensure that there is the required supply of expertise in the area.

D. Research and evaluation

1. Population education in Fiji is made more difficult because of the complex nature of the society. Different values and attitudes can be found within different racial and religious groups. Some of these values and attitudes have a direct bearing on the content, methodologies and strategies of population education. In order to draw up a realistic and effective set of programmes within a national plan, there is a need for basic research into the attitudes and values of the various religious and racial/cultural groups.

2. The Health Department and the Family Planning Association have been promoting family planning for some years. There are several elements of population education, including family planning, in the existing school curriculum. These programmes provide a basis for urgently-needed action-oriented research studies in both the in-school and the out-of-school areas. The results could then be used for further planning and adaptation in both content and methodology. Such research would be in addition to the present feed-back system of evaluation which is built into the school curriculum development system.

3. There is a need for long-term studies to attempt to assess changes in attitudes or values in the various sections of the population, and to try to establish the relationship of such changes to the population education programme.

E. Information centre

There is a need for a population education information centre, which would collect and disseminate information and materials relevant to population education.

Such a centre would also provide a mechanism for exchange of materials and information with other countries.

F. Physical needs

1. Library and reference books to stock the information centre
2. Suitable buildings in rural areas
3. Vehicles, boats, projectors for mobile units
4. Creation of materials resource centres at suitable locations outside Suva, for use in the formal and non-formal programmes.

This report on the country's needs is discussed in terms of creating awareness and orientation, curriculum and materials development, training of personnel, research and evaluation and the establishment of a population information centre.

II. Tentative plan for population education

Justification

In the foreword to the 'Development Plan Seven', the Prime Minister wrote that the Plan is "aimed primarily at a better redistribution of the fruits of development," and that it "offers a road to increased happiness and prosperity" - these aims concern the quality of life and their over-riding requirement is "a stable and harmonious political, social and economic framework."

In Chapter Two of the same Plan we read that one major objective "will be to decentralize economic activity by location, and broaden involvement by race, and to enhance opportunities, material living standard and the social and cultural amenities of the rural areas" (p. 5 section 2.5). The means of achieving these aims are spelled out in the various sector plans. The planners appear to be very concerned about stimulating the general population to take appropriate action themselves,

and to participate in the total thrust of development (e.g. DP7 No. 30.13 on the objectives of rural development).

Fiji's population is growing at a rate of 2 per cent per annum. At present the demands of the growing population for educational facilities, health services, and job opportunities are not being adequately met. At the same time there are such social problems as rise in crime rates and urban drift.

The Government's efforts to solve these recurring problems by introducing elements of population education in primary and secondary schools curricula, encouraging family planning and stressing rural development, have had limited success. Therefore, Fiji needs a unifying educational concept which will help to overcome obstacles to development. A comprehensive plan of population education for the whole country is the means suggested as the best hope for integration of the efforts of planners and for the involvement of the general population. Population education aims at creating an awareness in the general population of the relationship between the various objectives of development and the means used, i.e. the relationship between the quality of life, use of environment and resources, and population changes. Being aware of these relationships, they will then be more capable of taking responsibility for their own community development and the achievement of national goals. The plan presented below shows the strategies proposed for Fiji in order to bring about an ongoing system of population education.

Programme objectives

The general objective of the programme is to bring about an improvement in the quality of life by:

1. making the people of Fiji aware of the population problem
2. creating an awareness in the people of the interrelationships of population size, resources and the quality of life, and by
3. helping people to make rational decisions about population matters.

Specific objectives

1. To develop in the personnel connected with the formulation and implementation of the programmes an awareness of, and positive attitudes towards, the need for population education.
2. To evaluate the primary and secondary curricula for their population education component.
3. To develop curricula in population education for
   a) primary and secondary schools,
   b) teacher education, and for the
   c) training of field functionaries.

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4. To produce the necessary motivational and teacher training materials such as pupils' books, teachers' guides, audio-visual materials, posters, radio programmes, worker's handbooks, supplementary reading materials and training kits.

5. To provide necessary training to the personnel engaged in population education, particularly in co-ordination, curriculum development, material development, training of field workers, pre-service and in-service training of teachers in the field, at the village level and in teaching at primary and secondary schools.

6. To provide fellowships in population education to ensure that there is a supply of experts in the field.

7. To prepare an inventory of existing facilities and equipment for training and supplementing them, if necessary, to improve the training of personnel for population education.

8. To establish an effective administrative mechanism for the implementation of population education programmes.

9. To provide an opportunity to the people at the grass-roots level to actively participate in population education programmes.

10. To establish a centre for the promotion of population education in the country.

11. To collect population education materials and information from different agencies and disseminate them among interested agencies and personnel.

12. To undertake research and evaluation studies on different aspects of population education in Fiji and on the various stages of the implementation of the programme.

Tentative Plan for Population Education

Stage	Activity	Target audience	Output
1	Orientation of policy makers (Three seminars of one-day duration)	a) Parliamentarians and senators b) Permanent secretaries and district commissioners c) Leaders of non-government organizations and community leaders at national level.	An awareness of the value and the need for population education Acceptance of population education in Development Plan 8
2	Selection of project personnel (through secondment) a) Co-ordinators for Population Education (In-School) Unit. b) Curriculum Development and Resources Officer c) Information Officer d) Teacher Training Staff e) Research and Evaluation Officer f) Research assistants		
3	Orientation seminars	Education Officers, Principals, Headmasters, School Management and community leaders	Awareness of the broad areas

Stage	Activity	Target audience	Output
4	Development of curricula and resource materials	Curriculum development officers of Population Education Unit.	Curriculum and materials for population education for a) Primary schools b) Secondary schools c) In-service teacher training d) Pre-service teacher training e) Pupils' books and teachers' guides for the above groups f) Supplementary readers for above curricula g) Audio-visual aids for above curricula
5	In-service teacher training	Teachers of Forms 1-4 Forms 1-4 Social science, science, home economics, modern studies Form 5 Biological science, home economics, physical science Form 6 Geography, economics, biology, English	Ability to integrate population education concepts into particular subject areas.
6	Implementation of school curriculum	School student population	1. Knowledge and awareness of relationship between population changes, resources and environment, and the quality of life. 2. Ability to accept responsibility and make decisions affecting the development of the community and nation.
7	Research and evaluation of content, methodology, strategies	Students, teachers, parents, and others	Information leading to adaptation of content, methodology and strategies

III. Institutional structure

An institutional structure needs to be set up so that population activities can be co-ordinated at the national level. The suggestion is that there be set up a Central Co-ordinating Committee comprised of representatives of the Fiji Government.

Its chief function would be to control and co-ordinate policies with regard to population education in both the in-school and the out-of-school sectors. The in-school sector has the following positions/ institutions:

1. a Population Education Unit attached to the present Curriculum Development Unit set up.
2. the Population Education Unit is headed by a co-ordinator, who is helped in his work by an in-school co-ordinating committee.
3. below the co-ordinator, there will be a Curriculum Development and Resources Officer, a Research and Evaluation Officer, and an Information Officer.
4. below the Research and Evaluation Officer, there are two local Assistant Research and Evaluation Officers.
5. there are four curriculum development and training officers whose main responsibility would be to develop the population education curricula. They will work in close association with the Ministry's Curriculum Development heads of subjects e.g. in social science and science.

Specific functions

1. Co-ordinator

   The co-ordinator will be responsible for

   a) the day-to-day running of the Population Education Unit,

   b) administration of finances,

   c) drawing up policy statements with regard to population education, with advice and assistance from the In-School Population Education Committee,

   d) carrying out liaison functions with the Ministry of Education, the Central Co-ordinating Committee, and local UNFPA representatives and the principals of the Teacher Training Colleges,

   e) providing professional guidance to all his staff and helping them draw up plans for action.

2. Curriculum development and resources officer

This officer will be responsible for

a) the development of curriculum and resources in relation to population education. For this purpose, he will work very closely with the subject heads of the Ministry of Education and Teachers' Colleges, particularly in Social Science and Science,

b) supervising the work of the four curriculum developers,

c) providing assistance for the implementation of population education programmes in Teachers' Colleges.

3. Research and evaluation officer

This officer will be responsible for

a) designing research instruments for assessing the basic values and attitudes of the different sections of the population which might be relevant to population education,

b) designing research instruments for evaluating the effects of the curriculum as it is implemented,

c) making the results of his research and evaluation available to curriculum developers for both in-school and out-of-school programmes,

d) training the Assistant Research and Evaluation Officers.

4. Assistant research officers

These officers will assist the Research and Evaluation Officer with respect to conducting research and evaluation needed for establishing the basis for the population education programme. They will also carry out the evaluation of the programme as it is implemented.

5. Information officer

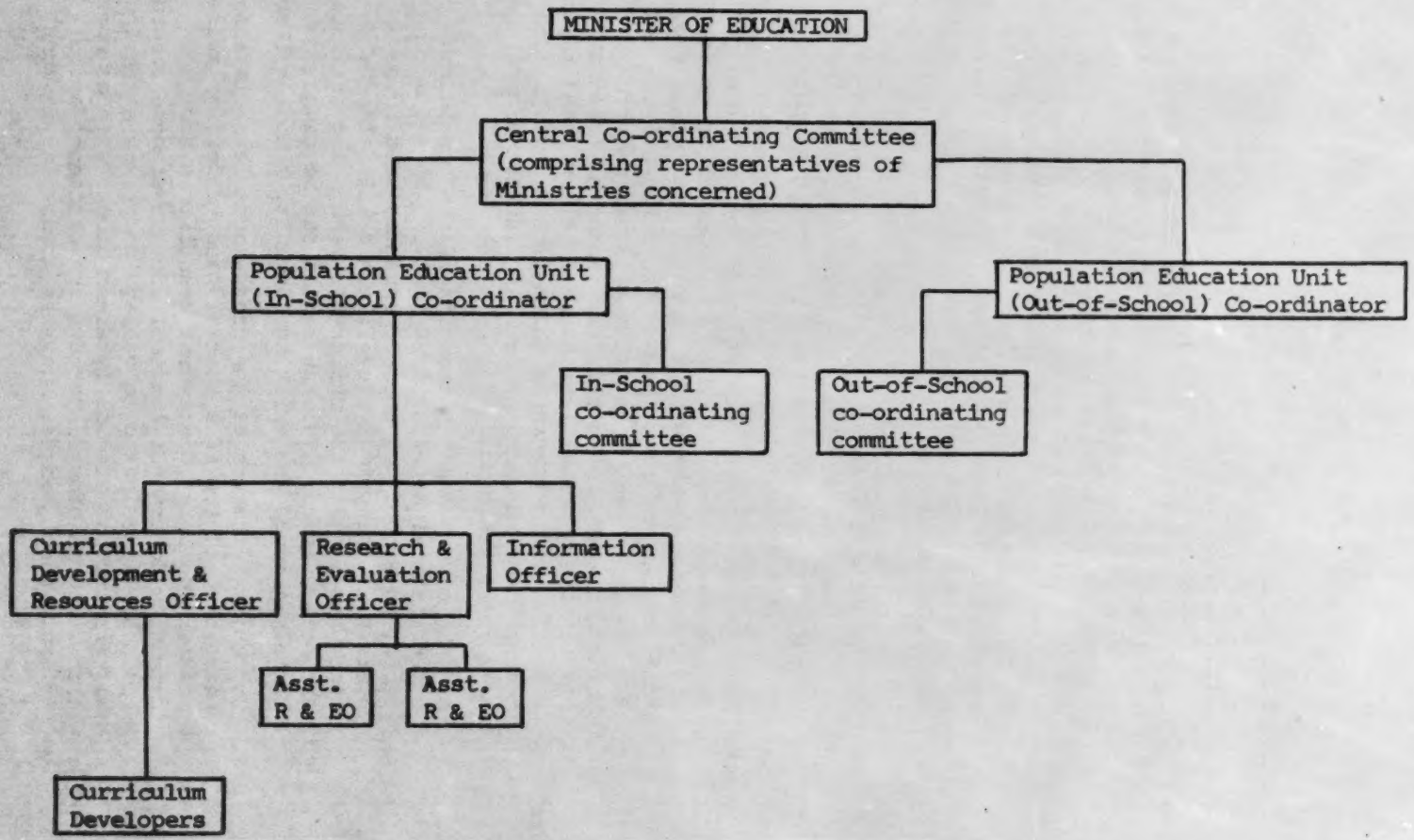
This officer will be responsible for

a) the collection, collation, storage, duplication and dissemination of printed materials on population education,

b) the production of publicity material on population education,

c) exchanging population education information with other countries of the region and with UNFPA.

Institutional structure


MINISTER OF EDUCATION
Central Co-ordinating Committee (comprising representatives of Ministries concerned)
Population Education Unit (In-School) Co-ordinator
Population Education Unit (Out-of-School) Co-ordinator
In-School co-ordinating committee
Out-of-School co-ordinating committee
Curriculum Development & Resources Officer
Research & Evaluation Officer
Information Officer
Asst. R & EO
Asst. R & EO
Curriculum Developers

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Fiji

PAPUA NEW GUINEA

I. Assessment of needs

A. Awareness and orientation

1. There is a need for concise and relevant orientation programmes for policy makers and key administrators at both national and provincial levels. Members of the National Parliament often make statements on all sorts of issues. As these statements usually receive considerable publicity in the press and on radio, there is perhaps a very special need to make Members of Parliament fully aware of the population situation and the potential role of a population education programme.

   Overseas study tours arranged for key administrators may be able to develop awareness in the national policy makers. Provincial workshops could help develop population awareness in provincial policy makers and administrators.

2. Teachers need to be made aware of the need for population education before an in-school programme is introduced. Many teachers in Papua New Guinea feel that curriculum change occurs too frequently. They are likely to have a negative attitude towards another change. Awareness for teachers (especially at the community school level) could be developed through a special radio programme which already exists for teachers and through the existing infrastructure for in-service training.

3. As only a very small proportion of the population attends school after Grade 6 (between 15 and 20 per cent), in-school awareness programmes need to be started at the primary level. This will also be the time when many of the children's values and attitudes are being formed. This awareness can be taught largely through the existing community school syllabus.

4. Community awareness at the grass-roots level is also necessary. There is a special need to develop awareness in the Local Government Councillors and Community Government leaders. Some awareness programmes could be disseminated to village people by extension workers through special interest groups such as women's clubs, church groups, parents and citizens' associations, school boards, business groups and farmers'

groups. Mass media such as radio and films as well as comics, leaflets and posters are also possible channels for awareness programmes.

5. It would be most desirable to have a national core team to undertake orientation and training activities at the national and provincial levels.

B. Curriculum and materials

1. The in-school population education programme should be an integrated course. To do this, skilled manpower and finance will be needed to examine the present courses for their population education content; to make slight revisions to some courses so that all the required population education content is included, and to prepare appropriate teaching materials. It will probably be very difficult to create the extra positions (both professional and technical) which will be required to implement the in-school population education programme. Funds would be needed to employ typists and illustrators. In-school materials such as teachers' guides, books, posters, school broadcast programmes, school magazines and possibly comics would be required.

2. The out-of-school population education programme should be directed towards the provincial level for implementation. There needs to be some structure at the national level to determine what aspects of population education can be incorporated into the content of various development activities such as agriculture, health and nutrition extension work.

   There needs to be some structure at the provincial level to co-ordinate the out-of-school population education programme in every province.

   Materials which could be suitable for out-of-school programmes are films, radio programmes, posters and leaflets. There may be some interest in population education correspondence courses directed towards school leavers. Artists to prepare these materials will be needed.

C. Training of personnel

1. The present Curriculum Unit does not have enough personnel to redirect manpower into writing population education materials. The need is to train new staff rather than reorient existing staff.

2. Population education programmes should be developed in all tertiary institutions training extension workers e.g. teachers' colleges, agricultural colleges and paramedical colleges, as well as in the university.

3. There will be a need to train personnel for an out-of-school programme in the methodology of integrating population education into the various types of extension work at present being conducted.

4. People involved in communicating population education will need training in skills and techniques in developing and producing both training and learning materials.

5. There are already several face-to-face in-service infrastructures mostly at provincial level which could be used for training teachers in population education. As already mentioned, there is a special radio programme for teachers which could help in promoting teacher awareness, but it is probably not comprehensive enough to be used as an effective vehicle for training in population education. There is a need to test and explore other types of training schemes both for teachers and other extension workers.

D. Research and evaluation

1. It would be wise to carry out a survey in all provinces among rural and urban dwellers to determine which aspects of the population situation are causing the most concern. The population education programme in each province could then be directed towards meeting these needs.

2. There is a need to do research on whether photographs or drawings are more easily understood by villagers before posters are prepared for the campaign. Research should also be done to determine which type of radio presentation - talks, interviews or plays - gets the message across better to rural people.

3. Once materials have been prepared and used, their effectiveness should be evaluated.

4. There should be an evaluation of the effectiveness of the implementation of the programmes at the provincial level.

5. After the programme has been underway for a year, research should be done to assess changes in attitudes among both in-school and out-of-school groups.

6. The effectiveness of various methods and approaches used in teaching population education in in-school and out-of-school sectors should be evaluated.

7. The effectiveness of extension workers and teachers in carrying out population education should be evaluated.

E. Coherence of in-school and out-of-school programmes

1. At the national level there should be a Population Education Co-ordinating Committee. This would have strengthening coherence of the out-of-school programmes to the in-school programmes as one of its roles.

2. The co-ordination of out-of-school programmes should be done at provincial level.

3. There is a need for the population education concepts taught as part of a development activity to be consistent with the overall objectives and framework of that development activity.

4. Coherence between in-school and out-of-school programmes could also be helped by having a large common component in the training courses in population education offered to teachers and extension officers; and we think exchange visits between teachers and extension officers working in the same local communities would enable them to see the approaches the others are taking to population education. This could help programmes to be more coherent. Making secondary school facilities available for out-of-school population education programmes could also help.

5. A National Population Education Newsletter with contributions from both in-school and out-of-school programmes could also be valuable.

F. Population education information network

1. There is a need to distribute ideas and information through the nation - especially since our programmes are to be organized on a provincial basis. Three ways of doing this are:

   a) National workshops
   b) Regional workshops
   c) Correspondence

2. To disseminate useful ideas and materials within the nation we suggest the publication of a national newsletter.

3. Translation is a very real problem in Papua New Guinea, which has over 700 languages. However, it would be impossible to provide special translation services for population education programmes. The present infrastructure for translation services offered by the NBC and Office of Information should be used.

II. Draft outline of project proposal

A. Justification

A population education programme in Papua New Guinea should provide knowledge and understanding about population dynamics, the causes and consequences of population growth, the relationship between population change and development as well as components of the quality of life - health, housing, environment, food and nutrition, education, employment and social services and how these are affected by population issues.

It cannot be denied that Papua New Guinea has a very fast rate of population growth - nearly 3 per cent per annum - which is slowing down economic growth and preventing the standard of living from rising. A strong argument can be made that more people means a more powerful nation. But this is only when people are healthy, well-nourished, well-housed and well-educated.

In Papua New Guinea the level of infant mortality is still unacceptably high, while malnutrition continues to be a pervasive problem affecting a large proportion of children in both rural and urban areas. The health of many women is poor, especially once child-bearing begins. Far too many women have a large number of children born very close together. (The average number of births for all Papua New Guinea women of child-bearing age is 7.5). Constant child-bearing combined with an inadequate diet means that most women are anaemic. As women are the main gardeners of the nation, their poor state of health must adversely affect food production.

In some areas, land pressure problems are probably a direct cause of child malnutrition and tribal fighting. In the towns, where a large rural-urban drift results in even more rapid population growth, there is a grave shortage of land for housing, while unplanned squatter settlements are increasing. Throughout the nation there is a shortage of health and education services and people increasingly feel that they are being left behind by development.

B. Specific objectives

Awareness and orientation

To orientate

1. National policy makers;
2. Provincial policy makers;
3. Local and community government counsellors;
4. All primary and secondary teachers;
5. Lecturers of post-secondary training colleges;
6. Curriculum development staff in general;
7. Selected key national administrators;
8. General population and school children.

Curriculum and material development

1. To develop a population education curriculum for community and secondary schools;
2. To develop a population education curriculum for teachers' colleges;
3. To develop a population education curriculum for post-secondary colleges that train workers;
4. To develop both teaching and learning materials to support the various population education curricula.

Training of personnel

To train

1. the National Population Education Team;
2. Lecturers in all post-secondary training colleges;
3. Teachers and extension workers:
   a) Pre-service
   b) In-service
4. Provincial population education co-ordinators.

Research and evaluation

To conduct research and evaluation into:

1. People's attitudes and values on population issues;
2. The most appropriate type of visual and radio presentation for conveying population education information;
3. The effectiveness of the different teaching techniques in population education;
4. The degree of attitude change in the general population as a result of the population education programme;
5. The effectiveness of the teachers and extension workers in implementing population programme;
6. The physical coverage of the population education programme throughout Papua New Guinea.

Coherence of in-school and out-of-school programmes

1. To co-ordinate coherence in the in-service and pre-service training programmes;
2. To maintain cohesion between the in-school and out-of-school population education programmes.

Population education information network

1. To provide for face-to-face communication between the National Population Education Team and the Provincial Population Education Co-ordinators
2. To disseminate ideas and information through published materials between all the people involved in population education.

C. Project activities

1. Orientation for national policy makers and key administrators will be conducted as a series of two-day seminars, one to be held in each province. They will be run by the National Population Education Team together with guest speakers. The seminar will attempt to develop an awareness of Papua New Guinea's population situation at the national and provincial levels and of the need for a co-ordinated national population education programme.
2. Orientation for provincial policy makers and key provincial administrators will be conducted as a series of two-day seminars, one to be held in each province. They will be run by the National Population Education Team together with guest speakers. These seminars will attempt to develop an awareness of the national population situation and, in particular, of the provincial population situation and of the need for a co-ordinated population education programme specifically tailored for that province.
3. Orientation for both local and community government counsellors and the provincial policy makers and administrators will be carried out at the same time in each province. They will participate in the two-day seminar to be held in each province and managed by the National Population Education Team. The seminar will attempt to develop an awareness of the national population situation, and in particular, of the province's population situation and of the need for a co-ordinated population education programme specifically tailored for that province.

4. Orientation for all primary and secondary teachers in the country will be carried out by including population awareness in all national in-service week programmes; by including population awareness in radio programmes for teachers; by putting population awareness articles in the Education Gazette, and by distributing population information handbooks to all teachers. This multi-facetted approach will attempt to develop an awareness of the national population situation in teachers, and will particularly stress the need for a co-ordinated population education programme in which they will play an important role.

5. Orientation for lecturers of post-secondary training colleges will be carried out as a series of two-day seminars, one to be held in each region or province, wherever post-secondary training colleges are located. The seminars will be run by the National Population Education Team together with guest speakers. These seminars will attempt to develop an awareness of Papua New Guinea's population situation at the national and provincial levels and will stress the need for a co-ordinated population education programme in which the team will play an important training role.

6. Orientation for curriculum development staff in general will be carried out as a two-day seminar to be run by the National Population Education Team together with guest speakers. The seminar will attempt to develop an awareness of Papua New Guinea's population situation at the national and provincial levels and will particularly stress the need for a co-ordinated population education programme and the need for aspects of this programme to be integrated into the primary and secondary school curricula.

7. Orientation for selected key national administrators will be carried out through a study tour of population education programmes in neighbouring countries to be organized by the Unesco Regional Mobile Team. The study tour will attempt to develop an awareness of the need for a well-thought-out, well-co-ordinated population education programme in Papua New Guinea as a way of assisting integrated development in the country and of promoting a better quality of life for all citizens.

8. Orientation for the general population in both rural and urban areas will be carried out as part of an integrated population awareness campaign to be organized by the National Population Education Team.

In particular, campaign materials will be disseminated by identifying and using key groups in the local communities such as women's clubs, church groups, parents' and citizens' associations, school boards, business groups and farmers' groups. It is hoped that an awareness of the important population issues facing the nation and, in particular, their province, will be developed in the general population through the following ways: a) production of radio programmes (e.g. interviews and short dramas) for provincial radio stations in Pidgin, Motu and the vernacular languages, b) distribution of posters and comics to key groups in local communities and c) the production of popular plays based on population themes by travelling theatre companies.

9. Orientation for school children both primary and secondary will be carried out as part of the general population awareness campaign to be organized by the National Population Education Team. Through the production of special radio programmes for school children for broadcasting over the national radio station during school time, the distribution of posters and comics to all schools, the distribution of class sets of population information handbooks to all schools and the production of popular plays using population themes by travelling theatre companies who regularly visit schools, it is hoped that an early awareness of the important population issues facing the nation will be developed in school children.

Curriculum and material development

10. The population education curriculum for community and secondary schools will be developed through a series of three or four half-day meetings between some members of the National Population Education Team (especially the In-School Curriculum Officer) and personnel from the Curriculum Unit of the Ministry of Education, Science and Culture. In these meetings the present courses in all subjects will be examined for population education content. The population education concepts which are to be included in various syllabuses will be identified, and revisions will be made to these syllabuses to incorporate the identified concepts.

11. The population education curriculum for teachers' colleges will be developed in two stages. There will be a three-day National Workshop attended by the heads of those departments which will be involved in population education from all teachers' colleges, selected Curriculum Unit Personnel and members of the national team (who will

also organize it). The second stage will consist of several curriculum development meetings organized at each teachers' college by the subject heads for all lecturers who will be involved in teaching population education. In the National Workshop, the population education curriculum developed for community and secondary schools will be examined. The depth at which population education should be treated will be determined and appropriate methodologies for teaching population education in the in-school situation will also be identified. The meetings held at individual teachers' colleges will plan out the details of the approach to population education content and methodology to be included in the course offered by that college.

12. The population education curriculum for training extension workers will be developed in two stages. The first stage will be a two-day national workshop attended by appropriate lecturers from the post-secondary institutions involved in training extension workers and some members of the national team. This will be followed by several curriculum development meetings held at each institution for staff who will be involved in teaching various aspects of population education contents and methodology to the students of that institution. In the National Workshop the suggested population education content for Papua New Guinea will be examined and those parts of the content appropriate for incorporation in the courses for each institution will be identified. Suitable methodologies for teaching population education in the out-of-school sector will also be discussed. The meetings held later at each institution will plan out the details of the approach to population education content and methodology to be incorporated in the courses offered by that college.

13. The development of teaching and learning materials to support the various population education curricula will be carried out over a period of 12 months by the Materials Officer, the In-School Curriculum Officer and the Out-of-School Content Co-ordinator working in consultation with selected staff of the Curriculum Unit and those post-secondary institutions involved in population education. These people will prepare teachers' and students' guides, handbooks for extension workers, school radio broadcasts, school magazines, comics, posters, leaflets, films and correspondence courses for school leaders.

Training of personnel

14. Training of the national population education team will be done by offering overseas fellowships to the In-School Curriculum Officer, the Out-of-School Curriculum Officer and the Materials Officer for periods of three to six months, and by organizing a one-month study tour for these three personnel plus the Co-ordinator, the Liaison Officer and the Training Officer. These training programmes will be organized by the Unesco Regional Mobile Team and will attempt to provide the National Team members with professional upgrading and familiarization with all aspects of the population education programmes in some neighbouring Asian countries.

15. Training of lecturers in post-secondary institutions will be done by offering two-day intensive workshops in each of six regional centres on the contents and materials of the population education programme. This training will be organized by the National Population Education Team and will attempt to familiarize these trainers with the content of the population education programme and present to them some successful methods for teaching this material to their students.

Training of teachers and extension workers

16. Training at the pre-service stage will be done by incorporating population education content and methodology in appropriate existing college courses. This will be carried out by the college lecturers and will attempt to inform and train trainee-teachers and trainee-extension workers so that they will be able to effectively teach population education concepts through their various disciplines when they graduate.

17. Training at the in-service stage will be done by including population education content and methodology in the existing in-service courses provided for teachers and extension workers at various stages of their careers. These courses will be carried out by the lecturers in the various post-secondary training colleges, assisted by the Provincial Population Education Co-ordinator and members of the National Population Education Team and will attempt to inform and train teachers and extension workers so that they will be able to effectively teach population education concepts in their various disciplines.

18. Training of provincial population education co-ordinators will be done initially by offering a two-week workshop on content and appropriate methodology of population education, plus training in administrative and organization techniques. This workshop will be organized by members of the National Population Education Team

and will give the Provincial Population Education Co-ordinators the expertise to co-ordinate provincial population education programmes. Additional training of Provincial Population Education Co-ordinators will be done by continuous advisory visits by the National Population Education Team members (especially the Liaison Officer) and through correspondence courses organized by the Curriculum and Materials Officers of the National Team.

Research and evaluation

19. A survey of people's attitudes and values on population issues will be carried out by a research programme conducted in all provinces among rural and urban dwellers in all age groups and of both sexes. This research programme is estimated to take two years and will be carried out by the National Population Education Team's research officer in conjunction with other National Team personnel, teachers, and extension workers. It will attempt to determine which aspects of the population situation cause people most concern, and what aspects of the population situation the people in each province are already aware of, so that the national population education programme can be directed towards meeting these specific needs.

20. A survey to identify the most appropriate type of visual and radio presentation for conveying population education messages will be carried out in all provinces by the Research Officer in the National Team in conjunction with the Materials Officer, Provincial Information Officers attached to the Office of Information and other contract manpower. This research will attempt to identify the most effective and meaningful form of poster presentation (photographs, drawings or cartoons) understood by villagers and to identify the most effective type of radio presentation (talks, interviews or plays). The results of this research will be used to develop appropriate visual aids and radio programmes for conveying the messages of the population education programme to the general population.

21. The effectiveness of the materials produced by the population education programme will be assessed by subjective and objective evaluation methods. This evaluation will be carried out one year after the programme has been introduced into the school curriculum and into out-of-school extension programmes and will be co-ordinated and conducted by the Research Officer in conjunction with the Materials Officer, the Provincial Population

Education Co-ordinators, provincial information officers, teachers and extension workers. It will attempt to evaluate the effectiveness of all materials used in the in-school and out-of-school population education programmes.

22. The effectiveness of the teachers and extension workers in implementing the population education programme and in teaching population education concepts will be assessed by subjective and objective evaluation methods. This evaluation will be carried out one year after population education has been introduced into in-school and out-of-school education programmes and will be co-ordinated by the Research Officer in conjunction with the Materials Officer, the Liaison Officer and the Training Officer. It will attempt to evaluate the effectiveness of both teachers and extension workers in implementing and teaching the content materials of the population education programme.

23. The effectiveness of the different teaching techniques used to present population education concepts will be assessed by subjective and objective methods. This evaluation will be carried out one year after the population education programme has begun and will be carried out at the same time as the above research study. It will be conducted by the Research Officer, together with the Liaison Officer, Training Officer, teachers and extension workers and will attempt to evaluate the effectiveness of different teaching techniques in presenting population education in each of the provinces to both the in-school and out-of-school sectors.

24. The degree of attitude change in the general population resulting from the population education programme will be assessed by subjective and objective evaluation methods. This evaluation will be carried out one year after the population education programme in the in-school and out-of-school sectors has begun. It will be carried out by the Research Officer in conjunction with other National Team personnel, the Provincial Population Education Co-ordinator, teachers and extension workers, and will try to assess changes in attitudes on population issues in both the in-school and out-of-school sectors of the general population as a result of the population education programme.

25. The physical coverage of the population education programme throughout Papua New Guinea (i.e. the extent to which the programme has reached the various age, sex, geographical and language group components of the population, province by province) will be assessed by subjective and objective evaluation techniques. The data

for this research can be obtained at the same time as that for the previous research study (No. 24). The Research Officer, together with other national team personnel, the Provincial Population Education Co-ordinator, teachers and extension workers will carry out the study which will try to find out the extent to which different components of the population in each province have been reached by the population education programme.

Coherence of in-school and out-of-school programmes

26. Co-ordination among the out-of-school population education programmes in a province will be an important task of the Provincial Population Education Co-ordinator who will maintain close contact with all extension departments and with their extension workers, and who will also foster communication between these groups through meetings and visits at the provincial level. In addition, he will sometimes co-ordinate the efforts of extension workers in presenting population education concepts to the people of the province. This will enable the work done by the different extension workers in the province to be co-ordinated.

27. Cohesiveness between the in-school and out-of-school population education programmes in a province will be achieved by a series of exchange visits between teachers and other extension workers. These visits will be arranged mostly on an informal basis by the teachers and extension workers in a local area, with occasional supervision by the Provincial Population Education Co-ordinator. These exchange visits will give teachers and extension workers an opportunity to learn from each other about various aspects of population education.

Population education information network

28. Face-to-face communication between the national population education team and the provincial population education co-ordinators will be achieved through an annual three-day conference which will be organized by the National Team, and by a series of advisory visits by members of the National Team (especially the Liaison Officer) to provinces. This face-to-face communication will allow for the exchange of ideas and the discussion of successes and problems among all the Provincial Population Education Co-ordinators and between them and the National Team.

29. Dissemination of ideas and materials used in population education programmes in different provinces will be achieved through a National Newsletter to be published three times a year. This newsletter will be prepared by the Liaison Officer and will contain contributions from Provincial Population Education Co-ordinators and field workers as well as articles written by members of the National Team. This should enable population educators all through the nation to share ideas and become aware of developments in other provinces.

D. Structure

The basic structure suggested for the population education programme is to have one National Population Education Team and one Population Education Co-ordinator for each province.

The National Team will consist of:

1. a co-ordinator who will co-ordinate the efforts of the national team, maintain close contact with all extension departments and groups involved in population education and ensure that the team is kept up-to-date on developments in population education in other parts of the region.
2. a research officer who will be responsible for all research associated with the project.
3. an in-school curriculum officer who will be responsible for developing population education curriculum for the in-school programme and for developing appropriate teaching and learning materials for this curriculum.
4. an out-of-school content co-ordinator who will be responsible for co-ordinating the population education content directed at different target audiences in the out-of-school sector and for developing appropriate teaching and learning materials for these groups.
5. a materials officer who will work with the in-school curriculum officer and the out-of-school content co-ordinator to prepare and produce teaching and learning materials.
6. a liaison officer who will be responsible for the establishment and maintenance of a Population Education Information Network.
7. a training and workshop officer who will be responsible for organizing workshops and training.
8. support staff such as typists, illustrators, and clerks.

The Provincial Population Education Co-ordinator will be responsible for co-ordinating the implementation of the population education programme in each province.

SOLOMON ISLANDS

I. Assessment of needs

The needs in population education that have been identified are given below.

A. Orientation about the conceptual framework

B. Development of curricula

1. Primary and secondary schools.
2. Teacher training.
3. Training of personnel in the out-of-school sector.

C. Development of materials for both in-school and out-of-school use

1. Promotional materials such as radio, magazines, newspapers, posters, pamphlets, and newsletters.
2. Development of materials mentioned above in selected vernacula.
3. Development of instructional materials for population education workers and teachers, and teaching materials.
4. Development of learning packages.

D. Training of personnel

Training of programme personnel, administrators, supervisors, population education workers, and teachers.

E. Research and evaluation

1. Assistance in the assessment of target group's knowledge and attitudes in relation to population education.
2. Assistance in the analysis of the secondary curriculum area.
3. Assistance in the formulation of evaluation techniques for application in:
   a) in-school and out-of-school programmes
   b) periodic assessment of the overall programme
   c) choice of effective methods.

F. Resource/durable equipment

1. Need for population education clearing house.

2. Reference centre on population education for schools and colleges.
3. Software for poster-making machine.
4. Equipment
   a) Poster-making machine
   b) Photocopier
   c) Stencil machine
   d) Spirit duplicator
   e) Slide/filmstrip projectors
   f) Slide-making attachments and 35 mm. camera
   g) Radio cassettes
   h) Tape cassettes
   i) Portable generators
   j) Learning package containers

G. Technical assistance

1. National seminar/orientation programme organization and implementation.
2. Methods of integrating population education concepts into various development programmes.
3. Planning and conducting training courses for in-school as well as out-of-school personnel.
4. Population Education Trainer's course.
5. Assisting co-ordinator in establishing an institutional framework for population education.

II. Draft outline for project proposal

A. Justification

The population of the Solomon Islands, according to the 1975 census, was 196,283. By 1985, this population will be 268,000 (based on present projections). This represents a growth rate of 3.4 per cent, causing pressures and problems which not only use up all available resources of finance and skilled manpower, but means that it will become exceptionally difficult for the country to maintain the present standard of living, let alone move forward to a point where people will generally be better off. Resources will be used up in what are considered as unproductive areas and many people will encounter a negative shift in the standard of living. A smaller rate of population growth will enable people to partake in development, and allow available financial and manpower resources to be allocated to productive areas. Improvements could also be made in the key sections of education and health (among others). Efforts could then be directed to improving subsistence production, spreading cash opportunities, and reviewing communication and transport problems.

It is intended that the activities outlined in this 'tentative plan' will contribute, over a period of time, to a reduction in population growth rate, thus enabling acceptable national development to take place.

B. Objectives of the project

1. Long-range objectives:

   a) To reduce the population growth rate to one, which will contribute to the realization of the National Development Plan Objectives.

   b) To ensure that population issues awareness is maintained throughout the country.

2. Immediate objectives:

   a) To develop an understanding of the factors causing rapid population growth and urbanization, and to appreciate the interrelationships between population change and quality of life.

   b) To develop responsible attitudes towards population-related issues and to act in accordance with such attitudes.

   c) To develop an understanding of the population policies and programmes of one's own country and to contribute towards their attainment.

C. Project activities

Overview and time-frame of proposed activities:

Activity no. 1

1. National seminar on population education
2. Aims and objectives
   a) To invite the participation of delegates from both the in-school and out-of-school sectors.
   b) To introduce population education concepts and issues to the participants.
   c) To form a co-ordinating structure for implementation of future out-of-school and in-school programmes.
3. Executing agency/personnel
   The executing agency will be the Ministry of Education and Training (MET) with assistance from UNFPA.
4. Participants
   Participants will be from government ministries, churches, private organizations, women's groups, community leaders and politicians, from both the national and provincial assembly.

5. Duration of the activities

   a) The seminar will be held in a central venue at a suitable date and time.

   b) The Co-ordinating Committee, which will include the participants to this seminar and inter-country visit, plus others, will be responsible for planning and co-ordinating the national seminar.

6. Evaluation

   a) To assess the knowledge and attitude of the participants in regard to population education.

   b) To assess the needs of population education material both in-school and out-of-school.

   c) To evaluate the seminar and, on the basis of the findings, plan the follow-up provincial seminars.

7. Follow-up activities
   The Co-ordinating Committee will plan future activities according to the unmet needs of the community.

Activity no. 2

Orientation

Stage I

Hold meetings and discussions at the governmental level e.g. with Permanent Secretaries, Central Planning Office, Foreign Affairs, Information and Broadcasting, Governments Ministers, Legislative Assembly members.

Objective

The purpose is to make decision makers aware of population as a problem and population education as a means of coping with the population problem.

Target groups

a) Council of Ministers
b) Members of Legislative Assembly
c) All Permanent Secretaries
d) Central Planning Office Staff
e) Foreign Affairs Staff
f) Solomon Islands Christian Association members

Executing agency

The executing agency for the above activity might be the Population Education Co-ordinating Committee.

Internal/external resource

Legislative Assembly Office - Office of the Prime Minister.

Stage II

Participate through lectures, discussions and demonstrations in pre-service, in-service and refresher courses for all categories of school teachers, health and social workers in both Government missions, voluntary organizations and private enterprises.

Objective

To create awareness on the part of programme implementors of the population problem and population education as a means of coping with the population problem.

Target group

a) Teachers in training at the Solomon Islands Teacher's College (SITC)

b) Teachers on refresher and in-service training at provincial level

c) All health staff in pre-service training e.g. Nursing School students

d) Social development workers under training of one kind or another

(It must be noted here that the above activity should only be an inclusion into existing programmes.)

Executing agency

The executing agency of the above activities would be the Ministry of Education and Training (Adult Education Section).

Internal/external resource

All training institutions which will be involved internally.

Stage III

Preparation and production of radio and press materials.

Objective

To create awareness on the part of the general public of the population problem and population education as a means of coping with the problems.

Activity no. 3

Curriculum materials (in-school)

I. Primary

1. Social studies

Aims and objectives

a) To identify suitable areas within the present social studies syllabus for the infusion of population education related topics.

b) To write the population education topics for inclusion in the identified areas.

c) To implement the material through the established curriculum implementation structure.

Executing agency

The Ministry of Education and Training, specifically 'Primary Curriculum Development Unit'.

Target groups

Primary teachers and pupils.

Participants

a) Social Studies Head of Department, Solomon Islands Teacher's College.

b) Curriculum Development Officer (Primary).

c) Curriculum Development Course members.

d) Primary Curriculum Committee Sub-committee members.

e) Selected schools throughout the country.

Duration

One year.

Internal/external resources utilized

Internal:
a) Curriculum Printing Unit
b) Curriculum Printing Personnel
c) MET personnel
d) SITC personnel

External:
UNFPA/Unesco expertise for evaluation

Evaluation

a) Normal tryout procedures and evaluative methods
b) Evaluation expertise for affective domain evaluation.

2. Health

Aims and objectives

a) To identify suitable areas within the syllabus for the infusion of population education related topics.

b) To write the population education topics for inclusion in the identified areas.

c) To implement the material through the established implementation/trial structure.

Executing agency

Ministry of Education and Training, specifically Primary Curriculum Development Unit.

Target groups

Primary teachers and pupils.

Participants

a) Curriculum Health writers (SITC)
b) CDO(P) (SITC)
c) Curriculum Development Course members
d) Primary Curriculum Committee sub-committee members
e) Selected schools throughout the country

Duration

Eight months.

Internal/external resources utilized

Internal:
a) Curriculum Printing Unit
b) Curriculum Printing personnel
c) MET personnel
d) SITC personnel

External:
UNFPA/Unesco expertise for evaluation

Evaluation

a) Normal tryout procedures and evaluative methods
b) Evaluation expertise for affective domain evaluation

3. Health education learning package

Aims and objectives

a) To develop a learning package containing the sub-regional population education materials, local health education materials, tape-slide health/comic presentation(s), and posters.

b) To successfully implement the package through:
   i) adequate training programmes
   ii) restricted tryout
   iii) careful step-by-step evaluation

Executive agency

Ministry of Education and Training (Curriculum Unit) in conjunction with the Ministry of Health and Medical Services (MHMS), Health Education Section.

Target groups

Primary pupils and village communities.

Participants

a) Curriculum Development Officer (Primary)
b) Health Education Officer
c) UNFPA personnel
d) Curriculum Development Course members
e) Primary Curriculum Committee sub-committee members
f) Selected schools throughout the country

Duration

One year.

Internal/external resources utilized

Internal:
a) Curriculum Printing Unit
b) Curriculum Printing Personnel
c) MET personnel
d) MHMS personnel
e) WHO representative
f) SITC

External:
UNFPA/Unesco expertise:
a) package development
b) evaluation

Evaluation

Two-stage evaluation
a) Periodic evaluation
b) Final evaluation

4. Teacher training (pre-service and in-service)

Aims and objectives

a) To develop a suitable population education programme course structure.

b) To examine and identify suitable population education materials produced at the local and regional levels.

Executing agency

Ministry of Education and Training in conjunction with the Solomon Islands Teachers' College.

Target groups

Teachers' College Students and practising teachers.

Participants

a) SITC personnel
b) Members of the Co-ordinating Agency

Duration

Ongoing.

Internal/external resources utilized

Internal:
a) 'Clearing House'
b) SITC
c) Curriculum Printing Unit

External:
a) UNFPA/Unesco expertise for:
   i) evaluation
   ii) course structuring and implementation.
b) Sub-regional curriculum materials.

Evaluation

Ongoing.

II. Secondary

Aims and objectives

a) To identify suitable areas within the present subject syllabi for the infusion of population education-related topics.
b) To write the population education topics for inclusion in the identified areas.
c) To implement the material through the established curriculum implementation structure.

Executing agency

Ministry of Education and Training, specifically the secondary curriculum unit.

Target groups

Secondary teachers and pupils.

Duration

At varying times (to be advised).

Participants

a) Secondary Curriculum Committee Panels' members.
b) ADAP and SPC Curriculum consultants.
c) UNFPA Curriculum consultant(s).
d) CDO(S).

Internal/external resources utilized

Internal:
a) Curriculum Printing Unit
b) Curriculum Printing Personnel

External:
a) ADAP consultants)
b) SPC consultants) — already established.
c) UNFPA consultants)

Evaluation

a) Normal evaluative methods currently used.
b) Evaluation expertise for affective domain.
c) UNFPA/Unesco expertise.

Target group

General public, both village and town dwellers, and decision makers.

Executing agency

Health Education Section (MHMS)

Internal/external resources

Solomon Islands Broadcasting Commission, Information Service, Curriculum Development Unit.

Activity 4

Material production

Stage I

Development of a resource centre (clearing house)

Objective

The aim is to have a centre from where up-to-date information and materials on population education can be obtained.

Target group

The centre would serve as a resource unit to serve the general public and the schools and tertiary institutions.

Internal/external resources

Public Library (MET)

Stage II

Production of posters, pamphlets, slides, filmstrips and other relevant materials on population education for out-of-school use.

Objective

The aim is to translate population concepts by means of audio-visual aid materials.

Executing agency

Ministry of Health and Medical Services (Health Education Section).

Internal/external resources

Curriculum Unit (SITC)
Unesco

Stage III

Production of a teacher/learner package and other materials for in-school use.

Objective

To equip teachers and schools with material resources on Health Education with population education concepts included.

Executing agency

Curriculum development unit (SITC)

Internal/external resources

(SITC) Curriculum Development Unit
(MHMS) Health Education Sector

Activity no. 5

Training (in-school)

1. Out-of-the-country training for personnel

Aims and objectives

a) To familiarize the key offices (e.g. co-ordinator - Adult Education officer, curriculum writers, curriculum production personnel) on materials relating to population education.

b) To make them aware of adaptation of population materials developed overseas for the local people.

Executing agency

UNFPA/Unesco

Participants

Key officers in curriculum production, dissemination and co-ordination.

Duration

Two weeks. Face-to-face course. To be held in Bangkok.

2. Teacher training

Pre-training students (primary and secondary levels)

Aims and objectives

a) To familiarize the students in methodology in population education topics which have been infused in subjects.

b) To undertake supervised practice teaching on population education topics in primary schools.

c) To familiarize the students in the effective use and delivery of the Health Education Learning Packages for village communities.

d) To familiarize and expose students to population studies and related population problems.

Executing agency/personnel

The Solomon Islands Teachers' College Lecturers.

Participants

Students on pre-service.

Duration

Two years in college plus one on school attachment.

Evaluation

The lecturers at the college will be asked to have evaluation built in as part of the normal day-to-day contact with the students and to review the subject matter and methodology.

3. In-service training (primary and secondary)

Aims and objectives

a) To familiarize the teachers in methodology on population education topics in subjects where infusion has taken place.

b) To familiarize the teachers in the effective use and delivery of the Health Education Learning package for village communities.

c) To expose teachers to population issues and their related problems.

Executing agency

The Solomon Islands Teachers' College lecturers and the provincial education staff.

Participants

Teachers in the schools.

Duration

One/two week(s). However, regularly for those who need it.

Evaluation

The education staff in the provinces evaluate the methodology used by teachers in the effective use in schools and run further in-service courses for those who need them.

Activity no. 6

Title: Training out-of-school

Aims and objectives

a) To introduce population education concepts and issues to the participants.

b) To enable the participants to disseminate population education to the community.

c) To equip the participants with the skills necessary in the successful utilization of audio-visual aids.

Executing agency/personnel

The executing agency will be the Population Education Co-ordinating Committee with assistance from the Ministry of Education and Training and UNFPA.

Target group

a) Ministry Extension workers, i.e. Agriculture Extension
b) Community leaders, formal and informal
c) Youth worker
d) Women representatives
e) Others

Participants

Participants will be invited from the target groups in each province.

Duration of the course

All courses for each priority group will be for one week, at a suitable venue and date.

Resources

Suitable training material will be used for training.

Evaluation

See Activity 8 of this Plan.

Follow-up

Each year there will be a course for the population education workers trained under this project.

Activity no. 7

Research

Aims and objectives

a) To formulate/devise a research instrument for the assessment of the level of awareness of population issues present in the target groups of both the in-school and out-of-school sectors.

b) To formulate/devise a research instrument for the recording/assessment of the attitudes of population education of the target groups of both the in-school and out-of-school sectors.

c) To analyse the in-school curriculum content in order to identify areas for infusion of population education concepts.

d) To develop/devise appropriate methodology for the implementation of population education programmes in the Solomon Islands.

Executing agency

Ministry of Education and Training in conjunction with pertinent UNFPA Personnel.

Target groups

All in-school and out-of-school sectors target groups.

Participants

a) UNFPA personnel
b) Assistance to be provided by personnel from in-school and out-of-school personnel.

Duration

Objectives a) and b). Three months.
c) and d). Varies.

Internal/external resources utilized

Internal:
a) Curriculum Printing Unit
b) Curriculum Printing Personnel

External:
UNFPA and Unesco Mobile Team

Evaluation

Implicit in the activity itself.

Activity no. 8

Aims and objectives

a) To construct suitable evaluative instruments for the assessment of the success or otherwise of infused population education concepts in both the in-school and out-of-school sectors.

b) To formulate a strategy for the periodic evaluation of the overall population education programme in the Solomons.

c) To develop a sound strategy for the evaluation of population education curriculum materials.

d) To evaluate the range of methods employed in in-school and out-of-school population education areas in order to discover the most effective methods.

Executing agency

Ministry of Education and Training in conjunction with pertinent UNFPA/Unesco personnel.

Target groups

All the in-school and out-of-school sectors' trainers and trainees.

Participants

a) Teachers (primary, secondary, tertiary)
b) Out-of-school sector trainers
c) Unesco Mobile Team

Duration

Ongoing.

Internal/external resources utilized

Internal:
a) Curriculum Printing Unit
b) Printing personnel

External:
UNFPA and Unesco Mobile Team.

Evaluation

Implicit in the activity itself.

D. Institutional framework

Co-ordinating committee

This will be formed during the National Seminar on Population Education. The Committee will be headed by a chairman. The chairman should be the senior Adult Education Officer. Thus the Committee will function within the administrative framework of the Adult Education section of the Ministry of Education and Training.

1. Aims and objectives

a) To co-ordinate all activities on population in the country.

b) To act as a clearing house for population education materials both local and overseas.

c) To hold national/provincial meetings on reviews/ redirection.

d) To act as a communication link for overseas population education agencies/groups.

e) To receive feedback on matters relating to population education from in-school and out-of-school sectors.

2. Executing agency/personnel

The Co-ordinating Committee will make the decisions. These are to be executed by the chairman in his official capacity.

3. Participants

   Local as well as overseas if needed.

4. Duration

   Throughout the life period of the project and onward.

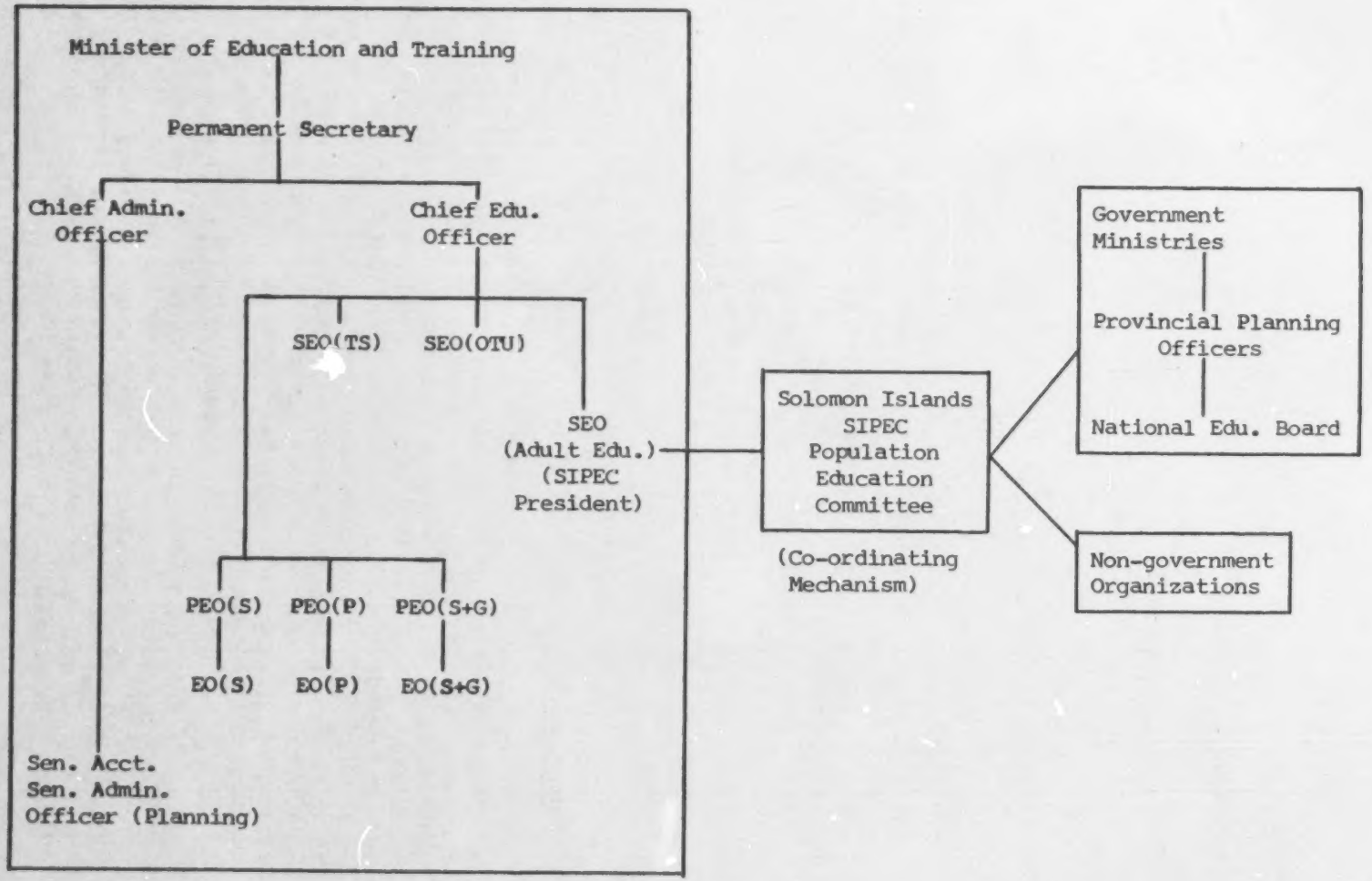
5. Personnel

   Local but could have overseas consultants if needed.

6. Evaluation

   It is an ongoing process built into the set up.

Institutional framework



TONGA

I. Assessment of needs

There are certain assumptions that have to be made with regard to Tonga's population education needs:

1. That co-ordination will be the task of the Ministry of Education, specifically the Curriculum Development Unit.
2. That the approach would be integration and infusion of the population education materials into both the existing in- and out-of-school programmes.
3. That the population education programme would be utilizing at all levels, in both the in- and out-of-school sector, the existing personnel and facilities; that wherever new personnel would be recruited and new facilities and materials required, these would be indicated quite clearly in the country plan of implementation.

The country needs fall into four broad categories:

a) Awareness and orientation
b) Training
c) Material
d) Evaluation and research

A. Awareness and orientation

Population education and its implications for national development is a new phenomenon in Tonga. Although population concepts have been taught in both the in- and out-of-school programmes, their relationship to both human and materials development have not been emphasized. There is a need therefore to orientate the whole population of Tonga towards population awareness. The initial efforts will be concentrated on developing a publicity campaign that would be directed at the total population. Those concerned would be the Core Group already involved in this seminar as well as personnel from the media and other information dissemination services. Later on there will be a need to orientate key personnel involved in the implementation process.

1. The two co-ordinator trainers responsible for the training of the trainers in both the in- and out-of-school programmes for co-ordinating within the school programmes for the primary, secondary and tertiary divisions and the out-of-school programmes, as well as between the in- and out-of-school programmes.

2. The orientation of those who would be responsible for the training. It is expected that this would be done by the co-ordinator-trainers.

3. The orientation of those who would be responsible, in both the in- and out-of-school sectors for the implementation of the material in the school and field situation.

Personnel	Materials
Core Group (5 members)	Tape Recorders
Radio Broadcasters (2)	Cameras
Journalists (2)	Posters
Photographers (2)	Film projectors
Demographers /from Statistics Department - (2)/	Kava and faikava materials
Visual Aid Experts (3)	
Kau Faikava (8)	

B. Training

Those involved in curriculum development have no particular expertise in population education. There is a need therefore to teach them the necessary knowledge concepts and skills that would be needed for a successful implementation of a population education programme.

Training is envisaged to be both in- and out-of-country levels:

1. Out-of-country training

   a) Co-ordinator trainers: There is a need for two people who would be responsible for the co-ordination of the in- and out-of-school programmes and the training of the trainers, to be trained in countries with ongoing population education programmes.

   b) Researchers: There is a need to train at least two people in research methods, especially in demographic skills, of collecting population data, and analysing them. However, other skills are just as relevant here, such as the ability to identify sources and relevant data, the ability to analyse these, the ability to extract the relevant information and formulate generalizations pertinent to population education. It is envisaged that this need would require formal training in an overseas institution offering such courses.

2. In-country training

   a) Training of trainers
   There is a need to train those who would be responsible for training the field officers and instruc-

tors of in- and out-of-school programmes, and the teachers in the school system. It is envisaged that part of the expertise would be provided by the two co-ordinator-trainers but it is hoped that the UNFPA or a similar organization would provide consultants.

Personnel	Materials
2 co-ordinator-trainers 1 or 2 consultants	training kits

b) Training of field instructors and school teachers
The training of those using the instructional materials (field instructors and school teachers in- and out-of-school programmes) would immediately follow the development of materials. Those responsible for training would be drawn from the group who have undergone a) above.

Personnel	Materials
A team of 5 would be involved in the in-service training for each district	Teachers' guide Pupils' booklets Sets of visual aid materials

C. Materials

There are of course no existing materials with exactly the right emphasis or content for the teaching of population education in either the in-school or out-of-school sector. If Tonga were to launch a full-scale population education programme, there is definitely a need to develop an produce materials that would be appropriate to its needs and which would be within its socio-political and economic contexts. Materials will be needed for the various stages of implementation.

1. Publicity materials
The first task in this area would be the development of materials such as newspaper articles, radio talks, and brochures, that could be used to create population awareness in Tonga's total population.

2. Trainers' materials
A different set of materials would be needed to train the trainers of field instructors and school teachers. The needs of this group would be different from those implementing the instructional materials, although there would be common aspects.

3. Materials for in- and out-of-school programmes
Some of the materials, especially in the out-of-school programme, would be entirely new since there are no existing materials available. In some content areas the

need would merely be to extend the scope of the materials to include population content. In other content areas there would only be a need to change the emphasis or to make explicit the relationship between population factors and socio-economic factors.

In the in-school situation the need would be to fill any gaps in the existing materials, develop new materials where necessary, and rewrite the existing materials to obtain the desired emphasis.

4. Visual aid materials
Although Tonga has a 100 per cent literate adult population, there is a great need, from an educational point of view, to develop visual aid materials that would increase the impact of the written materials. Some of these materials, such as films, population charts, posters, and slide sets, would be common to both in- and out-of-school programmes. There is a need therefore to increase the capacity of the resources section of the Curriculum Development Unit, both personnel and facilities to cope with new demands.

Personnel	Material
3 resource persons at least	Increase printing facilities Screen printing and photo-copying facilities, etc.

D. Evaluation and research

Evaluation is assumed to be one of the skills required in curriculum development. It is assumed therefore that there would be a pool of curriculum developers with the necessary expertise to develop population education materials. This would include the development of suitable evaluative mechanisms for the assessment of the different stages of the programme. The population curriculum team would be selected from those already involved in curriculum development in both the in-school and out-of-school sectors. However, there are evaluation devices especially suitable for the assessment of population education programmes and there is therefore a need for the development of evaluative and research skills, in those devices especially considered suitable for use in population education programmes.

II. Draft outline for population education programme

Justification

Population education is the relationship of population factors, such as births, deaths and migration, with the quality of life of people, in a particular area, at a particular point in time. 'Quality of life' to the Tongans means much more than an adequate satisfaction of

the basic needs of man, such as clothing, food, shelter and security. It also means a particular philosophy of life with certain values. These values contribute in covert and overt ways to that 'quality of life'. In Tonga, the group is valued above the individual. This is manifested in communal living and sharing, and a respect for authority and seniority. It means filial love as well as love of duty. In this view of life, sacrifice means denying one's self in favour of the supremacy of the group. But this view of life does not preclude the other - the group celebration of life through music and songs, craft and dances, laughter and tears.

In the last twenty-five years, the phenomenal growth of Tonga's population resulting in drastic population changes has threatened this quality of life. This is why Tonga is interested in population education. Some of the more pressing reasons are given below:

1. Population growth and resources
   Apart from its people, the land and the sea, Tonga is a country with very limited resources. The development of its human resources to a great extent depends on the effective utilization of its other two basic resources, the land and the sea. The unprecedented growth of the population in the last twenty-five years has seriously depleted the wealth of the land and the sea. The result is diminishing farm land, exhausted off-shore reefs, diminishing job opportunities, poorer public and social services as the same facilities and personnel struggle to cope with the increasing demands. All these are of course affecting the 'quality of life'.

2. Population growth and distribution
   Tonga has a centralized system of government which is reflected in the centralization of facilities and amenities. The administrative, economic, social, legal, educational and political headquarters are all located on the main island in the capital. These provide the pull factors which attract people to the capital, Nuku'alofa, and Tongatapu, the main island. Some of the effects are overcrowding, increase in sanitation problems, rising crime rate and unemployment, especially among the young. These factors are in turn undermining Tonga's 'quality of life'.

These are just some examples of the effect that population growth has on the quality of life and values of the Tongan people. The competition for scarce resources, such as land and educational facilities, is for example resulting in more individualistic attitudes, which are quite contrary to the Tongan's philosophy of life. The population education programme that is planned both for the in- and out-of-school sectors aims in the long term at maintaining and improving the Tongan's quality of life, both materially and value-wise. This means the adoption and implementation of certain strategies and activities that would create

awareness of the implications of population growth and would ultimately result in desired changes in the Tongan's attitude and behaviour to birth, death and migration. Such actions, it is hoped, would restore the balance between population growth and available resources.

Objectives and activities

These activities and strategies and their specific objectives and targets are detailed below.

Eight major areas of activity have been identified and they are listed below in the sequence in which they would be carried out, although it is expected that there would be certain overlaps in these activities time-wise.

1. Publicity

   The first objective in the national population education programme would be to orientate and create awareness about population education among the Tongan people, both in the in- and out-of-school sectors. The first phase in this exercise would be the launching of a publicity campaign in the form of radio programmes, public talks, *faikava*, newspaper articles, articles in periodicals, newsletters, publicity brochures, and of course personal contact. The five members who attended the sub-regional seminar-workshop would initiate this move, relying mostly on the resources, both personnel and material, of the Ministry itself and on other Government departments and private organizations already involved in the delivery of community education services. It is anticipated that additional staff would be needed during this period. They could be recruited from the established staff but it might be better to recruit members especially in the resources development area. This new staff would assist especially with the development of audio-visual aids, such as photographs and posters. However, the objective at this initial stage would merely be to make the people understand that population education is not simply family planning under another disguise. It is not the intention at this stage to develop or create very sophisticated publicity materials, but it is hoped that public interest would sufficiently be stimulated to warrant a national policy statement supporting population education. Publicity itself is expected to be a continuous process and the emphasis would vary with each stage of the programme.

2. Identify and train two co-ordinator-trainers

   The next stage of the programme which would overlap with Stage One, the publicity phase, is the selection and training of two persons from the Ministry of Education who would be

responsible for co-ordinating the in- and out-of-school programmes. The Ministry of Education itself has been identified by the Government as the agency responsible for the co-ordination of population education activities for both the in- and out-of-school sectors. Out-of-school training is used here to refer to both the training done by ministries other than education and to the training carried out by private organizations outside the school situation. It would be appropriate therefore for the two co-ordinators to be selected from the Ministry of Education itself. The in-school programme would naturally be the responsibility of the Senior Education Officer for Curriculum and the out-of-school programme is presently under the responsibility of the Senior Education Officer for Technical Education.

These two officers or their representatives would directly be responsible for the coherence of the whole exercise. But since they would have no particular expertise in population education they would be expected to undergo formal training for at least three months, part of which should be in the form of practical attachment plus one month of inter-country visits to countries with ongoing population education programmes. Tonga is not in a position to provide the funds for this kind of training and it is expected that a donor agency such as UNFPA would be requested to provide the funds. This is the short-term strategy in this area to meet the country's immediate needs but it would be appropriate at this stage to consider the full-length training of two or three researchers; especially in demographic skills and population education. The most suitable training would be university courses at either master or doctorate levels. Such training would provide the expertise that would be needed especially at the data collection and materials development stages.

3. Development of training materials

The two co-ordinator-trainers, while on training, would be expected to begin on the next stage of the programme, that is, the development of suitable training materials that could be used for training the in-country trainers who in turn would be responsible for training the adoptors at the grass-roots level. Their specific tasks would be to develop appropriate population data, to identify sources where appropriate population data are available, to analyse and extract relevant information to population education, to make appropriate generalizations and to develop appropriate materials for the orientation and training of trainers.

It is expected that population education would be integrated into the existing education programme of both the in- and out-of-school sectors. In the in-school situation, the popu-

lation issues specifically relevant to Tonga fall naturally into two subject areas at the primary level, three in the secondary level and four at the teachers' college level. These are health education and environmental science at the primary, social science, science and home economics at the secondary, and social science, science, home economics and health education at the teachers' training level. In the out-of-school sector those with the appropriate educational programmes are the Ministries of Health and Agriculture and private organizations such as church organizations and village-based organizations.

People who would be expected to participate in this training exercise would be those already involved in curriculum development in all these areas, and who are presently engaged in the pre- and in-service training of teachers and field officers.

Since there are no suitable training materials already available, Tonga would have to start from scratch. This stage of the programme would therefore need time and careful planning and outside expertise. It is hoped again that an outside organization such as Unesco would provide the consultants, one for the in-school and one for the out-of-school programmes. Supportive services would also have to be provided. Assistant researchers and collectors of data would be needed. They would be largely responsible for locating and extracting the appropriate information which would provide the background to materials development. A close working relationship would have to develop between this Core Group and the Statistics Departments and other relevant organizations. The resources sector of the Curriculum Development Unit would have to expand its activities and capacities to cope with the demands.

Three research assistants and three resource persons would provide the needed support. Additional secretarial support would also have to be provided. The population data may need to be computerized and this service could be requested from an overseas country. This stage would probably take five to nine months but extra time would have to be allowed for the printing of the training kits.

4. Training of trainers

The next stage is the actual training itself. The intention is to orientate and train all the in- and out-of-school trainers together. This would be economical from the manpower, time and financial points of view and it would also assist with the coherence of the whole programme since all trainers would be exposed to the same information. As already indicated in the Scope and Sequence exercise, the main content areas for both programmes would be the same.

Only the emphasis would vary. There will also be opportunities for the various organizations who are involved at present in community education, but working separately and often in ignorance of each other's efforts, to exchange information about each other's activities, to discuss common problems and thereby reduce duplication of efforts.

At the end of the exercise the various trainers would then be expected to return to their various organizations, or Government departments to begin training those who would be implementing the population education programmes at the grass-roots level.

The main emphasis of the training would be on orientation to population education and on skills in developing population education materials. Each training session is expected to take two weeks.

Trainers would be expected to travel a lot. This is true of the Ha'apai and Vava'u groups and the Niuas. Assistance would therefore have to be requested from outside for travelling and per diem expenses of participants. Assistance might also be needed in providing additional hardware that would be used in the training, such as film projectors.

5. Selection of the population education team and development of population education materials

One of the purposes of the trainers' training exercise would be to select the most suitable people, both from the in- and out-of-school situations to form a national curriculum team. There would be a representative composition from those involved. The group is not expected to be more than ten, otherwise the size would become cumbersome: the two co-ordinator trainers would be part of the group, but all levels in the in-school situation as well as the out-of-school organizations would be represented. This team would co-opt other members who would assist in providing information and data. Once the group is formed and approved by all those concerned it would then proceed to do the following:

a) Formulate aims and objectives

b) Confirm the content areas

c) Study the existing programmes both in- and out-of-school to see where population education materials could be infused.

d) Write suitable materials for use by all sections, levels, and target audiences.

e) Develop resources to support the written materials.

f) Develop suitable evaluative devices that would check target audience performance, teacher performance and content suitability and validity.

This aspect is especially important if the programme is to be effective at the grass-roots level, and will be dealt with in greater detail in Section Eight.

This stage of the programme would need a great deal of co-ordination and support. It would demand the part-time release, at least of all those forming the Curriculum Team to enable them to work together in the exercise. Materials would have to be drafted, typed, proof-read and moderated and redrafted several times before they would be ready. Teachers' guides and students' workbooks would be the main materials developed but there would also be publicity brochures, posters, tapes, slides and other teaching and supportive aids.

6. In-service training of implementors

Ultimately the programme's success and failure would depend on the effectiveness of its implementation at the grass-roots level. This means that unless the teachers and the field workers are cognizant of the philosophy of the materials, its content and methodology, and unless they are committed to its implementation, the programme, however brilliant its conception and design, would never achieve its targets. The next and perhaps the most important stage of the programme is to train those who would be using the materials in both the in-school and out-of-school situations. Each department and organization would be expected to carry out its own training using its existing facilities. However, it is expected that all departments and organizations would need assistance with the printing of its population education materials and the provision of suitable teaching aids.

An alternative would be to set up separate training teams consisting of both in- and out-of-school trainers who would then be responsible for training everyone in the use of population education materials. In this strategy, the country would be divided into seven districts: three in the main island, two in the Ha'apai Group and one each in Vava'u and the Niuas. A team of three (one from the in-school sector, one from the government and one from the non-government out-of-school sector), could do the in-service training in each district for both in- and out-of-school instructors. There are certain advantages in this arrangement: it would facilitate the coherence of the programme, it would ensure that the same information is disseminated to both in- and out-of-school instructors, it would ensure that local differences are respected, it would save on duplication of efforts and therefore would save on time and

finance. But this would depend on the rapport the co-ordinating agency is able to achieve with its sister departments and private organizations. However, in this arrangement assistance would be needed for transport, travel, per diem of trainers and participants, and assistants, and also for the printing of the materials and the provision of teaching aids. The teachers and the instructors would leave the in-service training course with all the materials, both software and hardware, that would be needed for effective implementation. Each in-service session is expected to take about a week to two weeks depending on the background and experience of the participants.

7. Adoption of the materials

When the teachers and the field instructors have been trained, it is time to adopt the population education materials at all levels and in both the in- and out-of-school situations. There are no major anticipated problems in the in-school situation for the programme would require merely an extension and enrichment of existing activities, but it is expected that the out-of-school programme would meet with some serious difficulties, not the least of which would be the co-ordination aspect. One strategy of avoiding outright rejection by the public and thereby suffering total failure is to choose a rather small target sample such as a particular women's group or organization and try the material with them first and then extend the activities when the feedback is satisfactory. This will mean delays in the impact but it would be better to be realistic about the situation. However, since this stage would come fairly late in the programme, there would be time to pose different approaches and explore other alternatives. One obvious advantage of this approach is the saving on manpower, training facilities, and materials. At least adoption would be tailored to the country's ability in all these areas to accommodate the new proposals and activities.

The time span before evaluation is expected to be two years. At least after this interval, there would be sufficient time for the programme to have some measurable impact on the target audiences' attitudes and behaviour. In the light of the feedback received from the first adoption, the materials would be modified in content, methodology and emphases and types of evaluation used.

8. Evaluation

Although this stage is listed last, evaluation would be a continuous process. Evaluative devices would be built into the programme and intensive evaluative exercises would be

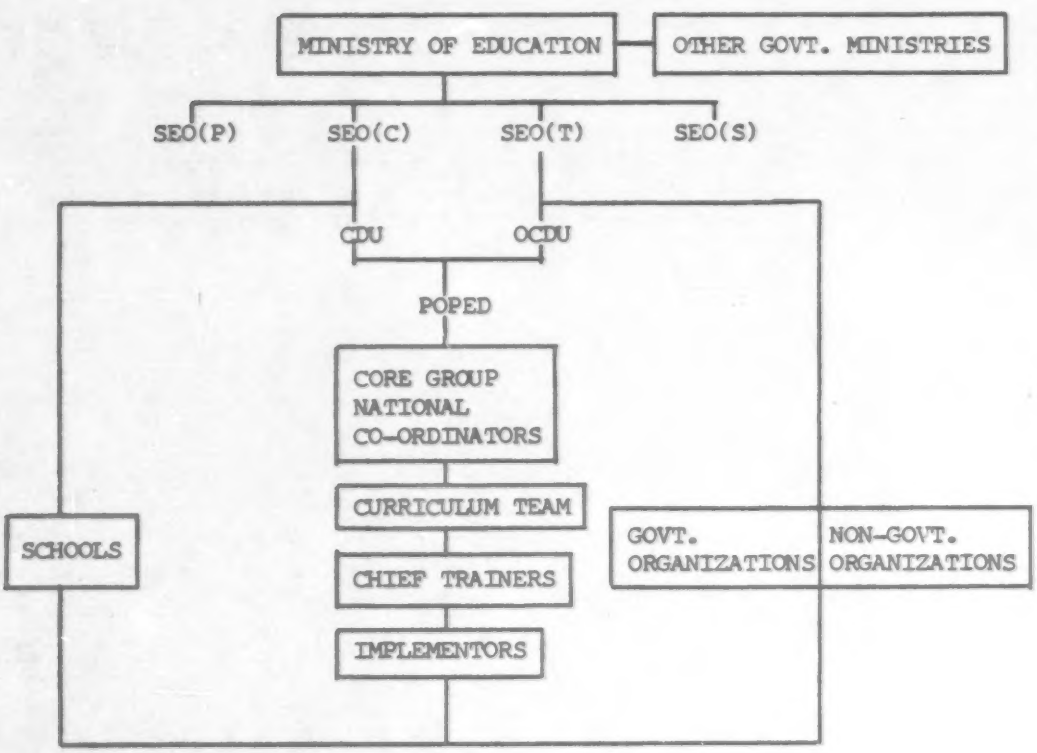
carried out at the end of each stage to ensure that the targets set are met. At least one advantage of having a common training team is in the evaluation aspect. A common team would be able to keep a regular check on all those using the materials to ensure appropriate implementation.

The co-ordinating agency would have to see that the broad targets are met and see to the evaluation of the overall impact. These targets would have to be specified in measurable terms such as reduction of the birth rate and slowing of migration rate.

9. Implementing structure

All the above-mentioned activities would need framework for implementation. The envisaged structure is set out below:

Institutional framework



Institutional framework

Under the Ministry of Education, there are two Senior Education Officers, SEO(C) and SEO(T) under whom the population education operates. The SEO(C) is responsible for all curriculum activities at all levels from formulation of aims and objectives to in-service and evaluation. The SEO(T) is responsible for all training and skill development at the tertiary level as well as out-of-school programmes and training. The two offices join together to administer the total programmes undertaken in population education.

The institutional framework shows the channels of communication in population education.

Immediately under the SEO(C) and the SEO(T) are the School Curriculum Development (CDU) and the Out-of-School Curriculum Unit (OCDU) respectively. Under the CDU and OCDU is the directing body of core members and national co-ordinators. Under this body is the curriculum team, and under the curriculum team is the chief body of trainers. Under the trainers are the implementors and below the implementors are the different target populations both in the in-school and out-of-school sectors. Both the CDU and the OCDU have direct channels to their respective target populations.

In order to procure and maintain coherence at all levels of the structure, the members of the core group, members of national co-ordinators and members of the curriculum team and trainers not only overlap but also are drawn from the CDU and OCDU existing bodies.

ASSESSMENT OF REGIONAL NEEDS IN POPULATION EDUCATION

Each of the participating countries identified national needs and, later, developed a draft plan for introducing population education both in the in-school and out-of-school sectors within their respective countries. This exercise was followed by a plenary session during which the participants identified needs and explored possibilities as to how their proposed projects could be further refined and strengthened with the assistance available from the Unesco Regional Population Education Programme Service, Bangkok. The participants unanimously felt the need for technical assistance of the Mobile Team in the preparation of project documents for submission to UNFPA in order to secure necessary funds. The needs for technical assistance in other programme areas also emerged but those needs can easily be placed under:

1. Awareness and orientation,
2. Curriculum and materials development,
3. Training of personnel,
4. Research and evaluation,
5. Coherence of in-school and out-of-school programmes,
6. Population education information network, and
7. Planning and development.

A brief description of needs under each of these areas is presented below:

1. Awareness and orientation

In order to create necessary awareness and provide orientation to different categories of personnel in the conceptual framework and scope and sequence of population education and to ensure continued total national support for these new programmes, there is necessity to organize a series of seminars, workshops and inter-project inter-country study visits.

2. Curriculum and materials development

The following were identified as specific needs for technical assistance in the areas of curriculum and materials development:

a) Development of scope and sequence of population education;

b) Content analysis of existing educational materials;

c) Integration of population education concepts into in-school and out-of-school educational programmes;

d) Development of prototype curricula, motivational and instructional (teaching-learning) materials including audio-visual aids both for in-school and out-of-school programmes;

e) To assemble and document experiences and disseminate them in Asia and Oceania;

f) Publish a Newsletter for disseminating new developments in population education.

3. Training of personnel

Training of personnel was considered very crucial for effective planning, implementation and evaluation of population education programmes. However, it was agreed that different categories of personnel both in the in-school and out-of-school sectors would require different types and varying duration of training programmes. Some of the specific needs identified were:

a) Training of key personnel through regional training courses such as group training courses, internship, inter-country/inter-project study visits;

b) In-depth national training programmes for developing trained team to undertake further in-country training of teachers and other field workers;

c) Training of secondary school teachers at the sub-regional level;

d) Fellowships for short-term studies, attachments etc. abroad.

4. Research and evaluation

The following were the needs in this area:

a) Inter-country research projects on common problem areas such as 'A study of the attitude of people towards population education'.

b) Evolve modalities for effective programme evaluation.

5. Coherence of in-school and out-of-school population education

There was a general feeling that there is a need for evolving a mechanism to link in-school and out-of-school population education programmes.

6. Population education information network

The need for collection and dissemination of information and materials on population education was highly emphasized. It was also felt that each project should establish some mechanism for in-country exchange of information besides taking steps to develop inter-country information network within the region.

7. Planning and development

The participants strongly felt the need for periodic exchange of experiences about the achievements and weakness of the programmes in the region to bring about improvements in future planning and development besides learning from each other's experiences. They further felt the need for such exercises both at the regional and national levels. However, the following two specific activities were recommended to be planned and organized:

a) Regional consultative seminars
b) National planning and development meetings.

PART THREE

COUNTRY REPORTS

FIJI

Introduction

The purpose of this paper is to present some insights into the extent to which the population education programme has been implemented in Fiji. More specifically, attempts have been made in this paper to:

1. look at Fiji's size, position, economy, demographic structure and recent changes in order to determine the nature, scope and possible trends in the population phenomena;
2. examine reasons for the development of patterns and trends in number 1 above and to discuss consequences of such changes;
3. isolate and discuss aspects of population education as taught in our schools;
4. assess Fiji's needs in the area of population education.

Position

Geographically, Fiji consists of a group of islands, more than 300 in number. Approximately one hundred of these are inhabited, most of the remainder being used for temporary residence and for planting. The principal islands are Viti Levu and Vanua Levu which comprise together an area of 16,622 sq.km. out of the total land area of 18,272 sq.km. or 87 per cent of the total. Viti Levu has an area of 10,388 sq. km. and Vanua Levu has an area of 5,534 sq.km. Suva, the capital and the second largest city, Lautoka, are on Viti Levu. The islands lie between 15° and 22° S latitude and between 174° W and 182° E longitude.

Fiji is a focal point for travel between the island territories of the South Pacific region and is well served by international airlines and shipping companies. Travelling within the Fiji group is by sea and also by air to the more developed islands.

Climate

The temperature at Suva, the capital, and at other sea-level stations is high throughout the year, but is tempered by the ocean. Indeed the country has all the advantages of a tropical climate without undue extremes of heat. The total annual rainfall varies according to exposure, and the windward areas enjoy an abundant rainfall, well distributed through the year. The leeward (i.e. north-western) sides have well-defined wet and dry seasons.

Economic position

Economically, Fiji is a developing country. It has a large agricultural base, sugar-cane and copra being its main products. Its manufacturing sector is growing, mainly to meet local requirements, but attempts are also being made to serve the other South Pacific territories with a limited range of manufactured goods. Tourism as an industry has grown rapidly in the past decade.

Population statistics

Demographic information is of importance for the efficient development of resources and satisfaction of the varying needs of different sectors of the community. Knowledge of the direction in which changes are taking place is important for future planning. As an example, changes in the birth-rate occurring now could have important implications for the planning of the number of schools and teachers in the future.

Population and growth rates

The latest census conducted in Fiji was in September 1976. The annual growth rate between the 1966 and 1976 censuses was 2.1 per cent. The estimated population and the annual growth rates from 1970 to 1977 are set out below.

Year	Estimated Mid-Year Population ('000s)	Estimated Annual Growth Rate (%)
1970	521	+3.0
1971	533	+2.3
1972	544	+2.1
1973	556	+2.2
1974	565	+1.6
1975	576	+1.9
1976	585	+1.7
1977	596	+1.9

Source: Social Indicators for Fiji, 1979, p. 1

The proportion of Fijians at the 1966 Census was 42.4 per cent as compared to 44.2 per cent at the 1976 Census; whereas for Indians it was 50.5 per cent and 49.8 per cent for 1966 and 1976 respectively. The Fijian growth rate has been greater during the last decade than for Indians.

Year	FIJIAN			INDIAN		
	Population ('000)	% of Total	Growth Rate	Population ('000)	% of Total	Growth Rate
1970	225	43		266	51	
1971	231	43	+2.7	272	51	+2.3
1972	237	43	+2.6	277	51	+1.8
1973	242	44	+2.1	281	51	+1.4
1974	248	44	+2.5	286	51	+1.8
1975	253	44	+2.0	290	51	+1.4
1976	261	44	+3.2	295	50	+1.7
1977	267	44	+2.3	301	50	+2.0

Source: Social Indicators for Fiji, 1979, p. 2

The lower growth rate of the Indians can be attributed to two factors:

1. The birth-rate of the Indians has declined.
2. The out-migration among Indians is higher than among Fijians.

Fertility and age at marriage

The fertility rates for Fijians have fluctuated but those for Indians have declined fairly consistently since 1970.

TOTAL FERTILITY RATES

Year	Fijian	Indian	National Population
1970	131.0	134.1	133.2
1971	133.2	132.9	133.0
1972	125.4	117.1	121.2
1973	118.0	119.0	121.6
1974	131.1	120.6	125.9
1975	125.2	116.9	121.9
1976	117.3	118.0	119.2

Source: Social Indicators for Fiji, 1979, p. 3

Use of contraceptives

There is evidence that Indian women are better protected by family planning methods than Fijian women. The 1974 Fiji Fertility

Survey indicated the following proportions of married women between 15 and 49 years have used each of the modern or 'traditional' methods of contraception at some time.

Method	Fijians (%)	Indians (%)	National Percentage
Pill	27	33	30
Loop	16	16	16
Condom	7	23	15
Sterilization	8	21	14.5
Withdrawal	14	15	14.5
Rhythm	12	18	15.0
Abstinence	11	8	9.5
Breast feeding •	11	3	7.0
Others	5	5	5.0

• Some women believe that they cannot become pregnant while breast-feeding.

Source: Social Indicators for Fiji, 1979, p. 6

The 'Fiji Profile' prepared by the Ministry of Health reports that the proportion of Fijians protected by any of the Family Planning Methods in 1977 has declined by one per cent when compared to 1972. The proportion of Indians has increased from 24 per cent in 1972 to 29 per cent in 1977. The national percentage of acceptors is 24.

FAMILY PLANNING ACCEPTORS BY RACE, 1972-1977

Year	FIJIANS		INDIANS	
	No. of Acceptors	% of Acceptors In Ethnic Groups	No. of Acceptors	% of Acceptors In Ethnic Groups
1972	8,763	16.9	15,574	24.0
1973	8,420	15.7	17,378	25.9
1974	8,372	15.1	19,541	28.4
1975	8,756	15.4	20,103	28.4
1976	8,699	15.0	20,240	28.1
1977	9,340	15.6	21,181	28.6

Source: Social Indicators for Fiji, 1979, p. 6

Life expectancy and age distribution of population

Life expectancy in Fiji is high.

		1966	1976
Fijians	Male	65	67
	Female	70	72
Indians	Male	62	65
	Female	67	68

Source: Social Indicators for Fiji, 1979, p. 6

Given below are the median ages of Fijian and Indian populations at the 1976 census as compared to the 1966 census. They clearly illustrate that the median age has increased over the last decade and this is expected to increase with the decline in birth-rate.

MEDIAN AGE OF MALE AND FEMALE

	1966 Census		1976 Census	
	Male (years)	Female (years)	Male (years)	Female (years)
National total	16.6	16.5	17.6	17.7
Fijians	17.4	18.1	18.5	19.0
Indians	15.5	15.0	18.3	18.3

Source: Social Indicators for Fiji, 1979, p. 7

Fiji has a young population with about two out of every five of its population under the age of 15 years at the 1976 census.

The tables below show the dependency ratios - young and old. Since Fiji has a young population, the 'young' dependency ratio is high but, with the decline in birth-rate, this is expected to decrease. On the other hand, with an expected increase in life expectancy, the 'old' dependency ratio is likely to increase because then the population will generally live longer and the proportion of older people will increase.

	Est. Population Aged 15-59 yrs.	Est. Population 0-14 yrs.	Est. Population 60+ yrs.	Total 'Dependence' Population
1970	277,899 (100%)	233,879 (81%)	22,679 (8%)	256,558 (89%)
1976	320,589 (100%)	245,732 (77%)	24,118 (8%)	269,850 (85%)

Source: Social Indicators for Fiji, 1979, p. 7

Note that this is obviously a crude measure since the calculation makes the assumption that everyone, male and female, in the age brackets 15-49 years is a 'producer' and that everyone outside the age bracket is a 'dependent'.

Internal migration

In Fiji, internal migration is mainly to the main island of Viti Levu from outlying islands. This migration is mainly for the purpose of finding jobs and also to further education. The concentrations of population are found in urban areas, coastal areas and river valleys.

At the 1976 census, 218,495 persons or 37.2 per cent of the total population lived in urban areas as against 159,259 persons or 33.4 per cent at the 1966 census. The proportion of most of the components living in urban areas has increased during the period between the 1966 and 1976 censuses. The only exceptions are Europeans and part-Europeans whose proportions have decreased. The greatest increase was experienced by the Rotumans with only about one-third of its population living in urban areas in 1966 as compared to about one half in 1976. The proportion of Fijians has also increased from about one quarter in 1966 to about one-third in 1976.

Component	Percentage of each population living in urban areas in		1976 Census		
	1966 (%)	1976 (%)	Urban	Peri-Urban	Total Urban
Total population	33.4	37.2	113,712	104,783	218,495
Chinese and part Chinese	84.0	85.6	3,161	820	3,981
European	85.7	82.7	3,048	1,029	4,077
Fijian	23.8	30.5	36,310	43,004	79,314
Indian	36.9	39.5	61,730	53,902	115,632
Part European	71.2	70.6	4,711	2,546	7,257
Rotuman	38.5	55.2	2,560	4,024	4,024
Other Pacific Islanders	46.9	48.8	1,445	1,881	3,326

Source: Social Indicators for Fiji, 1979, p. 9

Mortality

1. The crude death rate in Fiji in 1976 was 4.3 per 1,000 population as compared to 6.9 in 1975. During the last 5 years, the crude death rate has been stabilized at an average of 5 per 1,000 population.

Since Fiji has a young population, the death rate is low as compared to developed countries where they have a bigger proportion of older people than younger ones. The death rate is expected to increase with the increase in life expectancy.

STANDARDIZED DEATH RATES (PER 1,000 POPULATION)

Year	Fijian	Indian	Total population
1970	4.2	5.1	4.6
1971	5.4	5.9	5.9
1972	4.5	6.4	5.1
1973	4.1	6.5	5.0
1974	4.3	6.1	4.8
1975	5.3	9.4	6.9
1976	3.6	5.3	4.3

Source: Social Indicators for Fiji, 1979, p. 12

2. Infant mortality in Fiji is low when compared to other developing countries.

INFANT DEATHS PER 1,000 LIVE BIRTHS

		Medical Department	
Year	Total	Neonatal *	Post Neonatal **
1970	22.6 ø	13.0	9.5
1971	28.6 ø	17.4	11.1
1972	41.0	26.1	14.9
1973	41.1	26.2	15.0
1974	42.3	25.9	16.4
1975	41.4	25.2	16.2
1976	36.8	22.4	14.4
1977	31.8	19.2	12.6

* Deaths under 4 weeks
** Deaths between 4 weeks and 1 year
ø Collection of data not as complete in 1970 and 1971

Source: Social Indicators for Fiji, 1979, p. 13

Infant mortality is higher among Indians than among Fijians, mainly because of the high neonatal death rate among Indians.

Morbidity

Diseases such as poliomyelitis, diphtheria, typhoid fever, etc., have virtually disappeared and there has been a noted decline in the incidence of tetanus.

Health care resources

The Government's Medical Department provides the greater part of the preventive and curative services in the country. Apart from fees charged to patients admitted to the 'Pay Wards', direct medical care and health charges are purely nominal. Free health services for children were introduced in 1970.

Nutrition

In 1973, the Ministry of Health launched a national programme on nutrition education with the objective that "the principle of a balanced diet will be understood and practised by all the people." The programme is focusing its efforts on:

1. The teaching of nutrition in schools and training institutes;
2. The teaching of nutrition to health workers, Women Interest Officers and Agricultural Extension Officers in the field;
3. The teaching of nutrition to the people in villages and settlements by health workers, Women Interest Officers and Agricultural Extension Officers.

Education

Although school attendance is not compulsory, the full time roll of all schools increased in 1976 by 1,173 to 166,689. The primary roll dropped by 1,344 to 133,627 while the secondary roll increased by 2,686 to 30,758. The full time roll of technical and vocational schools and the teachers' colleges was 2,304. The total increase of 1,173 was the lowest for many years and this low increase by and large has been attributed to Fiji's declining birth rate since 1966.

About 29 per cent of Fiji's total population attended school full time in 1978. The percentage of 6-13 years old attending school rose from 95.6 per cent in 1975 to 95.8 per cent in 1976 while the corresponding figure for 6-11 years old rose from 98.6 per cent in 1975 to 98.9 per cent in 1976.

Individuals are considered to be functionally literate if they have completed at least five years of primary education. Using this definition, literacy among persons aged 15 years and over has risen from 72 per cent at the time of the 1966 census to 79 per cent in 1966.

Population growth and some related matters

The quality of life issue is primarily based on the availability in quantity and quality of resources such as food, fresh water, energy, space as well as adequate provision of facilities for education, employment, health services, security, recreation and creative development. Due to the increasing population pressure, most developing countries in the world are confronted with problems of food supply and adequate provision for the education and health of the people. This has put a limit on the pace of improvements in the standard of living and the quality of human life.

The flow of people towards the cities in search of jobs has created additional problems of unemployment, an increase in crime, violence and other antisocial activities. Even though most of the developing countries have made rapid progress in total economic growth, their far greater rate of population growth has made development in per capita terms very slow. Many countries have started family planning programmes to keep the rate of growth of population within manageable limits.

People in their teens and twenties have favourable attitudes towards family planning but this trend declines from middle to old age. Family planning alone cannot solve the problem of population increases. The problem has to be tackled in different ways. To bring about the desired change in the value system of the people so that the population growth can be within manageable limits, special education programmes need to be introduced in schools and colleges. Young people need to be made familiar with the problems of population pressure on the individual and the society, the nation and the world. They should have opportunities to develop attitudes, understanding and ways of thinking which can help them make the right decision with regard to family planning.

The importance of integrating population education with the education system of the country is quite obvious. Children should be educated at an early age about the implications of population growth. From the beginning they must be taught that the ideal of happiness and prosperity lies in limiting the size of the family. If a youngster understands this then he may be in a position to make the right decision for himself about how many children he should have, and is likely to be more perceptive to the message of family planning at a later time.

What is population education?

It is an education that makes the students aware of the processes and consequences of human population growth on the quality of life and the environment. Population education is not birth control or family planning although information concerning both might be included in the content of the programme. It is not a programme designed to persuade people to have a particular family size, either large or small. It can

be defined as a process by which the students investigate and expose the interactions between population and their environments, population characteristics, the causes and controls of population change and the consequences of population increase in the biological and social systems. Thus population education is the study of human population in relation to his environment with a view to improving his quality of life without adversely affecting the environment.

There are two ways through which population education can be introduced in the school curricula; one is that the population education material be infused into the existing school courses and the other is that it be introduced as a separate course. The infusion approach is an easy one when the courses are being revised. The Fiji Ministry of Education has already introduced topics of population education in the various courses that have been developed for Fiji schools. The following six major areas of population education have been discussed in our courses:

1. The population growth
2. Economic development and population
3. Social development
4. Health, nutrition and population
5. Biological factors - family life and population
6. Family planning policies and programmes

The first four areas are regarded as the core of any population education programme and the remaining two are usually regarded as the integral part of a family education programme.

In the Fiji context 'human reproduction' is one such area which has already been included in the biology courses. The usefulness of its inclusion is very obvious because students learn that birth is not a matter of chance or divine gift but a matter of individual decision.

The knowledge of the whole phenomenon of human reproduction helps in dispelling many myths and superstitions.

Aspects of population education included in the Fiji school curriculum

Basic science

One of the aims of the courses is to develop the students' understanding of their present environment and their possible future environment and the extent to which man is dependent on his natural environment, particularly the land and its produce. One of the five themes of the course is ecology and the general statement on this theme is as follows:

> "This would involve the study of interdependent population of producer, consumer and decomposer organisms, inhabiting a particular environment, and being distinguished by three related phenomena of energy flow, nutrient pools and population regulation."

A topic on population regulation under the following headings is taught at Forms 3 and 4 level.

1. The need for balanced foods;
2. Man as manipulator;
3. Physical and biological factors affecting the distribution of living things, including man.

Human reproduction, various methods of contraception, sexually transmitted diseases which affect the foetus, drugs that are harmful to the foetus, the functions of a family are discussed in the biological science programme for Form 5. This has been developed by the Ministry of Education.

In the social science programme developed by the Ministry of Education for Forms 1-4, aspects of population education are included under the following headings:

1. Living in towns
2. People
3. Communities
4. Looking at families

The family is an important social and biological phenomenon responsible for mechanics of population change, control and socialization. The study of 'families' dwells around -

a) types of family groupings;
b) kinship network;
c) generations;
d) family roles;
e) kinship patterns;
f) marriage and other institutions.

Although the core studies of the social science programme are general and deal with broader concepts, the support studies provide pupils with alternative case experiences.

In Unit 1.3 the concept of race/world classification and facts which lead to understanding of biological/cultural characteristics are discussed.

A unit on population and urban development deals with various aspects of population in Fiji. The important points discussed in this unit fall under the following headings:

1. The nature of Fiji's population - composition, number, growth and age/sex structure;
2. Distribution of population - reasons for density and distribution;

3. Forces affecting population growth;
4. Migration - internal migration in Fiji, urban rural migration, external migration;
5. Features of urban development - growth rates, problems of urbanization.

Needs in population education

Since population education is viewed in its broadest context and the approach is intended to be integrative, our main needs in this area might probably be:

1. To isolate and identify areas of content and approach which will need to be emphasized within the present curriculum structure;
2. To provide a certain in-depth training to key education personnel in the techniques of curriculum writing, materials production and teacher training aspects. Such key personnel will co-ordinate and implement population education in the school system of the country. They will provide the nucleus from which national population education programmes will emerge;
3. In the second phase such key personnel, with the help of Unesco officials, could provide face-to-face training to the practising teachers of the nation so that they are able to teach population content to the pupils in their schools.

PAPUA NEW GUINEA

Introduction

Most of the population statistics given in this report were collected in the 1971 Population Census. That census was based on a 10 per cent sample of the population living in rural villages, together with a complete count of people in urban areas and rural non-village settlements (i.e. places such as plantations, boarding schools, sawmills, mission stations etc.)

Papua New Guinea will conduct another census in 1980. In the 1980 National Census, everyone in the nation will be counted.

Population situation and characteristics

Papua New Guinea's total population in 1971 was 2,489,935. By far the majority of this population (2,435,409) was indigenous. Some provinces, such as the Southern Highlands, the Simbu and the Enga Provinces have high population densities. For some clans in these provinces there may be as many as 300 people making gardens in only one square kilometre of land. East New Britain and East Sepik also have areas of high population density.

In other provinces like the Western Province, the West Sepik Province and the Gulf Province, there are very low population densities. There may be as few as one person for every two square kilometres of land.

Thirty-nine per cent of Papua New Guinea's population is located in the five highlands provinces, but these provinces occupy only 13.7 per cent of the total land area. The five island provinces contain 13 per cent of the population while the four northern coastal provinces have 29 per cent. Nineteen per cent of the population is located in the five southern coastal provinces.

In Papua New Guinea, the area which has most people has the least growth in towns. Towns are important for providing wage employment opportunities to those people who have no access to land for rural farming, but in Papua New Guinea the people with least access to land for rural farming also have least access to wage employment in towns. It should also be noted that only one quarter of Papua New Guinea's land area is topographically suitable for agriculture.

Although the 'World Development Report, 1979' published by the World Bank shows Papua New Guinea's annual rate of growth of population to be 2.4 per cent, the Bureau of Statistics is working on a growth rate of 2.9 per cent.

Papua New Guinea's population is predominantly rural. The 1971 census figures indicate that 1,979,425 people belonged to the Rural Village sector while 234,192 people lived in non-village settlements in rural areas and 276,318 people live in urban areas. Thus the rural village population makes up about 80 per cent of the total population.

As in other countries, many people are moving from the rural village sector to urban areas looking for better opportunities for themselves and their families. Therefore, while the total population of Papua New Guinea is increasing at about 3 per cent per annum, the urban population is growing much faster than this.

The table below shows the estimated growth of the rural village, rural non-village and urban sectors of the population between 1971 and 1986. It has already become obvious, however, that the urban areas are not increasing in population quite as rapidly as was anticipated. The 1980 Census is expected to confirm this.

Table 1. Estimated Growth of the Rural Village, Rural Non-Village and Urban Sectors of the Population, 1971-1986.

POPULATION	1971	1976	1981	1986
Rural village	1,982,700	2,097,900	2,233,200	2,400,600
Rural non-village	222,600	318,000	436,400	585,700
Urban	230,200	393,100	607,600	884,900
Total	2,435,500	2,809,000	3,277,200	3,871,200

The table below contains a breakdown of Papua New Guinea's indigenous population by age grouping. These figures are from the 1971 Census.

Table 2. Papua New Guinea's Population by Age Groups, 1971.

AGE GROUP	MALE		FEMALE		PERSONS	
	No.	%	No.	%	No.	%
0 - 4	232,043	9.32	219,431	8.81	451,474	18.13
5 - 9	210,321	8.45	184,021	7.39	394,142	15.84
10 - 14	140,932	5.66	121,509	4.88	262,441	10.54
15 - 19	117,417	4.72	94,450	3.79	211,867	8.51
20 - 24	95,359	3.83	101,656	4.08	197,015	7.91
25 - 29	89,985	3.61	96,126	3.86	186,111	7.47
30 - 34	79,559	3.20	79,374	3.19	158,934	6.38
35 - 39	67,919	2.73	68,803	2.76	136,722	5.49
40 - 44	60,917	2.45	62,136	2.50	123,053	4.94
45 - 49	56,486	2.27	52,826	2.12	109,312	4.39
50 - 54	43,296	1.74	37,877	1.52	81,172	3.26
55 - 59	27,616	1.11	22,596	0.91	50,212	2.02
60 - 64	18,034	0.72	15,446	0.62	33,480	1.34
65 and over	21,968	0.88	15,706	0.63	37,673	1.51
Not stated	800	0.03	800	0.03	1,600	0.06
Total	1,262,651	50.71	1,172,758	47.10	2,435,409	97.81
12 and under	532,512	21.39	480,052	19.28	1,012,563	40.67
16 and over *	655,774	26.34	627,990	25.22	1,283,764	51.56
18 and over **	611,256	24.55	592,777	23.81	1,204,033	48.36

* Minimum legal age for entry into money-raising work force (incl. not stated).

** Minimum voting age (incl. not stated).

About 47 per cent, that is almost half of the total population, are children under 16 years of age. These people must depend on adults for basic necessities like food, clothing, shelter and education and health services. Thus almost half the total population are consumers, without producing anything themselves. This is a very heavy dependency burden for Papua New Guinea.

Some other characteristics of the population which will affect any population education programmes are described in the statistics below.

Table 3. Languages spoken by the population ten years of age and over.

Languages spoken	Male		Female		Total	
	No.	%	No.	%	No.	%
English	211,651	12.98	112,115	6.87	323,766	19.85
Piágin	469,770	28.81	237,355	14.55	707,125	43.36
Police Motu	103,016	6.32	47,636	2.92	150,652	9.24

Source: Census July 1971 Papua New Guinea.

Table 4. Population ten years of age and over - Radio Listening Habits.

Listening to radio	Male	Female	Total
Daily	198,719	141,154	339,873
Weekly	56,432	41,468	97,900
Seldom	177,102	144,934	322,037
Never	388,033	441,750	829,783
Total	820,287	769,306	1,589,593

Source: Census July 1971 Papua New Guinea.

Table 5. Primary Education: Grade 1-6 Enrolments as percentage of School Age Population (7-12 years), 1976.

Province	% Population 7-12 years
Enga	32
E. Highlands	40
S. Highlands	45
Chimbu	46
W. Highlands	48
Morobe	52
Northern	54
Madang	56
W. Sepik	58

Province	% Population 7-12 years
Western	60
Gulf	60
Manus	61
E. Sepik	62
Central	67
National Capital	70
N. Solomons	73
Milne Bay	77
N. Ireland	80
W.N. Britain	100
E.N. Britain	110

Table 6. Secondary Education: Grade 7 Enrolments as percentage of 13 years Age Group, 1975.

Province	% Population - 13 years
E. Highlands	7
S. Highlands	9
Enga	9
W. Highlands	11
W.N. Britain	12
Morobe	14
W. Sepik	15
E. Sepik	15
Gulf	16
Milne Bay	16
Madang	17
Western	17
Northern	18
Chimbu	18
N. Solomons	22
Central	24

Province	% Population - 13 years
N. Ireland	27
National Capital	28
Manus	31
E.N. Britain	50

In 1975, there were 77,000 seven-year-old children in Papua New Guinea. However, only 68 per cent were able to go to school and only 17 per cent of children were able to go on to high school.

The status of population education

Papua New Guinea has a Population Action Programme which is the responsibility of the Office of Environment and Conservation. Thus, most of this section of the report is devoted to the role of the Office of Environment and Conservation in population education. The role of the Education Department is mentioned towards the end of this section of the report.

Papua New Guinea's Population Action Programme has three main stages. These are:

1. Research and education
2. Policy formation
3. Policy implementation

Papua New Guinea is still in stage one of this Programme.

Research is being carried out to collect much-needed demographic data. This research includes studies on migration, the effects of population growth on land use and nutrition, urban and rural house surveys, and fertility, mortality and contraceptive usage. Various research projects on these topics are being carried out in different parts of the nation.

The Government will formulate a suitable National Population Policy based on the results of this research. Meanwhile, a public education programme on all aspects of population growth is being co-ordinated by the Office of Environment and Conservation.

This education programme has, as its objectives, to educate national, provincial and community leaders, school students, village and urban dwellers on the need:

1. To space births in order to improve maternal and child health.

2. To choose a family size commensurate with the resources of the family and the nation.

3. To influence population growth rates in order to reduce the dependency ratio in the total population and to reduce the strain imposed by rapid population growth on education and health services, land use and employment opportunities.

4. To integrate the provision of family planning services with attempts to educate and motivate people to use these services.

5. To develop programmes which will cope with population growth and distributional changes.

The education programme or 'Population Awareness Campaign' has four main areas of activity.

The first is the staging of provincial workshops. The aim of these workshops is to create an awareness among provincial leaders of the effects of rapid population growth on their development objectives so that these effects can be taken into account when planning for the province.

Methods of approach used in these workshops are still being experimented with. There can be no uniform approach because Papua New Guinea has a great diversity of cultures and people and there is no uniform national population problem. Some provinces are overpopulated while others are underpopulated.

Participants at the workshops include Provincial Government Assembly members (between 20 and 30 in each province), Local Government Councillors, key provincial public servants and representatives of some community groups.

During the workshops, the effects of rapid population growth on such features as education and health services, land, employment, agriculture, social development and planning are considered. It has been found more effective to concentrate on the effects of rapid population growth on the province rather than on a national point of view. The workshops also try to help the public servants to take population growth into account when planning for the province. Through discussion groups the public servants are able to make the politicians more aware of how rapid population growth affects development while the politicians are able to share their fear and anxieties about population control with the public servants. Priorities for the province can be established and plans for attacking population-related programmes such as nutrition and family planning programmes can be discussed at these workshops.

The second area of activity of the 'Population Awareness Campaign' is the production of a full-length population film called 'Maribe'. The

film was written in Pidgin (a language spoken by 43 per cent of the population according to the 1971 Census) and is designed to be shown by Office of Information projectionists in rural villages throughout the country. Many situations shown in the film will be familiar to village people who will have had similar experiences. For example, Maribe's first wife dies because she is weak from having too many children; his three sons cannot go to school; his eldest son leaves the village to find employment in a town - only to get caught up with a gang of thieves; another son is killed by a neighbouring clan while trying to make a garden in their swampy land; the whole family eventually has to leave its own clan land and resettle elsewhere because of a land shortage.

The Family Planning section of the Health Department is also funding a Pidgin film called 'The Fourth One'.

Radio programmes are the third area of activity in the 'Population Awareness Campaign'. A series of radio interview programmes is being produced. The emphasis in all these programmes is once again on communicating with people in their own situation. Thus the interviews need to be in local languages and need to deal with examples and problems at a provincial level rather than a national one.

In addition to these radio programmes, short situation radio dramas have been improvised by the National Theatre Company in Pidgin in the National Broadcasting Commission Studios. The six situations depicted include clan fighting in a context of land/population pressure, food shortage and malnourished children; a migrant who goes to town but cannot find work and a woman who dies in childbirth.

Short family planning 'commercials' have been produced by the National Broadcasting Commission in English for the national network. Transcriptions of these have been sent to provincial stations for translating and broadcasting in the provincial lingua franca.

A local song writer has been commissioned to write and record a population song for radio broadcasting.

The last major area of activity in the 'Population Awareness Campaign' is the production of population plays which are performed by theatre companies in rural areas.

The Office of Environment and Conservation has produced a number of publications such as 'The Effects of Population on Development' a handbook for extension workers, and 'A Growing Population in Papua New Guinea', a booklet designed for less-educated sections of the community. Posters relating to population education have also been produced and distributed through various provincial agencies.

Population and family planning education is already a part of the curriculum of the General Nursing, Midwifery Nursing, Health

Education, Nutrition, Family Health Education, Community Health, Nursing Education and Administration courses.

The handbook for extension workers has been distributed to a number of Provincial Extension training institutions, including agricultural colleges and nursing schools, for incorporation into their courses.

As far as the status of population education within the formal education system is concerned there has been no overall attempt to include population education at every stage in the curriculum. Only in the Community Life Syllabus for Community Schools has this been done. There is a brief reference to the advantages of small families in Grade 6 Health. This is the only other direct reference to the subject in the Community Schools Syllabus. The secondary curriculum contains some population related material in the science course (Units 8.11 - Growth and reproduction and 9.5 - Ecology). There is also a substantial section on population problems in Social Science Unit 10.1. In the National High Schools course, the subject is dealt with indirectly in the Grade 12 Science Major course, and directly in the Grade 12 Science Minor course.

The population studies in the Community Life Syllabus are summarized in Figure 10.

Figure 10. Population Studies in the Community Life Syllabus, Grades 2-6, for Community Schools in Papua New Guinea.

GRADE	UNIT HEADING	SUMMARY OF UNIT
2	Families and Clans	1. Counting people around us 2. Where have people come from in the past 3. What do people need
3	The Village	1. Counting the people in the village 2. Where do people go to and come from 3. Meeting people's needs
4	Age Groups in the Community	1. Counting people in different groups 2. Varying sizes of groups and communities 3. More needs for more people
5	Population in the Province, Effects of Growth	1. People in the province 2. Population Growth 3. Effects of Population Growth
6	Population in the Nation, Future Growth	1. Counting People 2. People in the Nation 3. Population Control

The expansions of these units are attached to this report.

It can be seen that the population studies in the Community Life syllabus look at the number of people in different sized groups and the resources these people will use. Other aspects of population such as migration, population growth and population control are also studied.

A problem will be faced in implementing these population studies because the Community Life syllabus for Grades 4, 5 and 6 contains such a lot of material. It will be difficult to cover the contents of the syllabus. More than eight lessons each year are devoted to the population studies component. On the other hand, it will be difficult to teach the population studies component adequately in eight lessons a year.

The structure of the Community Life syllabus is based on the idea that a child's first contact and understanding begins at home among his own family. As he grows older, he gradually moves out to the world around him and learns about places beyond his immediate surroundings. This structure is reflected in the population studies in the syllabus. The child starts by considering population at a family and clan level. He then moves on through village and provincial level studies to study population from a national viewpoint in Grade 6.

Students have to wait till Grade 10 of their social science course before they study population from a world perspective. In the Grade 10 work, students spend about one week looking at the population explosion and its consequences. In addition to doing this global study, students also examine the population situation in Papua New Guinea. This work is part of a larger unit called 'Man: The Environment and the Future' which looks at some of the major global problems being faced at this time.

The Grade 8 social science syllabus is now being rewritten. It is intended to include a small section on population in a unit on National Social Change.

The Grade 9 Science Unit on Ecology deals with the effects of population on the ecosystem. However, the Grade 12 module from the minor science course looks directly at the population issue. It starts with work on demography. This is followed by considering the attitudes and values people have towards the population issue. Students then study the Papua New Guinea population situation. A look at prospects for the future completes the module.

Needs in population education

On the one hand, it could be said that needs in population education cannot be defined until the Government has formulated its national population policy. On the other hand, the objectives of the population education programme drawn up by the Office of Environment and Conservation could be regarded as a statement of the needs in population education.

However, the Education Department is not responsible for either of the above areas of activity and work done at the population education workshop should not focus on them.

Within the formal education system, the needs of population education have, in one sense, already been defined by the syllabus. What is required now at the community school level is the preparation of lessons based on the syllabus content.

An attempt has already been made by the Office of Environment and Conservation to write a series of population education lessons for Grade 5 and 6 students. Unfortunately the lessons which have been written are not as closely related to the syllabus as they should be. More lessons have also been prepared than can be taught in the time available.

At secondary level the situation is somewhat different. As already mentioned, the need here is to prepare a small unit on population for the Grade 8 social science syllabus.

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SOLOMON ISLANDS

Introduction

The Solomon Islands comprises a scattered archipelago of mountainous islands and low-lying coral atolls stretching approximately 900 miles in a south-easterly direction from Bougainville, in Papua New Guinea. The archipelago covers an area of about 290,000 square nautical miles, of which the land area is approximately 11,500 square miles. The six major islands are Choiseul, New Georgia, Santa Isabel, Guadalcanal, Malaita, and San Cristobal - they are characterized by precipitous, thickly-forested mountain ranges, intersected by deep, narrow valleys. Mt. Popomanaseu (7,647 feet) on Guadalcanal is the highest mountain and the same island is the only one to have extensive coastal plains. The coasts are surrounded by extensive coral reefs and lagoons. Rivers are mainly narrow and unnavigable. Most of the islands have extensive mangrove swamps on many parts of the coast.

The island's equatorial climate, modified by the surrounding ocean, is warm and pleasant for most of the year, with few extremes of temperature. The mean annual temperature at Honiara is about 80°F (27°C). There are no clearly-defined seasonal variations, but between November and April the north-west winds bring high humidity and heavy rainfall, particularly to inland areas and the windward side of the main islands, with occasional squalls and cyclones. From April to November the south-east trade winds bring drier weather to most places. Annual rainfall at Honiara varies from 65 to 95 inches but elsewhere it is nearly 120 inches.

About 90 per cent of the population are Melanesians, the remainder include Polynesians, Micronesians, Europeans, Chinese and people of other racial origins. The population of the capital, and the largest township, Honiara, on Guadalcanal, at the time of the census was 14,993 (provisional). With an annual birth-rate of 3.5 per cent, 50 per cent of the population is under 14 years of age.

The Melanesians live on the larger islands, nearly 60,000 on Malaita, while the Polynesians live on the small islands or atolls. There is a slow movement away from the more crowded islands. Most villages are on or near the coast, but there are large 'bush' populations in the interior of Malaita and Guadalcanal. English is the official language and Pidgin English the lingua franca. In addition, there are about 80 local languages and dialects.

Following constitutional talks in London in May 1975, a new constitution providing for internal self-government was introduced on 2 January 1976. Twenty-four elected members of a Legislative Assembly elected a Chief Minister who in turn selected eight Ministers from the

Legislative Assembly to form a Cabinet. The number of members was increased from 24 to 36 in June 1976. In July 1978, independence brought a translation of the office of Chief Minister to that of Prime Minister with an appointed Governor-General as proxy Head of State.

There are seven provincial assemblies democratically elected as a result of a desire for decentralization. Each assembly consists of a President, a Clerk (appointed), and the remaining Executive Committee. The District assemblies have fiscal control of their areas and follow their own policies insofar as their budgetary and manpower status allows.

The population situation

The following gives an overview of the population of the Solomon Islands.

1. Size

The change in size of total population of the Solomon Islands is illustrated by the following table:

	1958		1970		1976
Total number of people	124,076		160,998		196,823
Average annual growth rate		2.6%		3.4%	

2. Ethnic origin

The Solomon Islands is mainly populated by Melanesian type of people as shown below:

	1970	%	1976	%
Melanesian	149,667	93.0	183.665	93.3
Polynesian	6,399	4.0	7,821	4.0
Micronesian	2,362	1.5	2,753	1.4
European	1,280	0.8	1,359	0.7
Chinese	577	0.3	452	0.2
Others	713	0.4	773	0.4
Total	160,998	100.0	196,823	100.0

3. Age distribution

Age distribution is one of the best indicators to future population size. The table below demonstrates the change in age structure between 1970 and 1976:

Age (5-year groups)	1970 No.	%	1976 No.	%
0 - 4	26,700	16.6	40,015	20.3
5 - 9	24,142	15.0	30,553	15.5
10 - 14	20,919	13.0	23,610	12.0
15 - 19	16,097	10.0	19,305	9.8
20 - 24	12,295	7.6	14,658	7.5
25 - 29	12,293	7.6	13,532	6.9
30 - 34	9,679	6.0	11,389	5.8
35 - 39	9,098	5.7	9,620	4.9
40 - 44	6,864	4.3	7,627	3.9
45 - 49	6,085	3.8	6,977	3.5
50 - 54	1,583	2.8	4,885	2.5
55 - 59	3,611	2.2	4,723	2.4
60 +	8,632	5.4	9,929	5.0
Total	160,998	100.0	196,823	100.0

4. Vital statistics

Vital statistics rates are most important in making estimates for future population sizes as they also indicate what is causing changes:

	1970	1976
Crude birth-rate (per 100 people)	41	49
Crude death-rate (per 100 people)	12	12
Infant mortality rate (per 100 in age group 0-1)	73	60
Life expectancy - male	59	n.a.
Life expectancy - female	43	n.a.
Age Specific Fertility (No. births per 1,000 women)		
Age groups		
15 - 19	66	121
20 - 24	247	308

Age groups	1970	1976
25 - 29	298	347
30 - 34	279	324
35 - 39	221	235
40 - 44	124	149
45 - 49	37	53

5. Size and rate of growth

The Solomon Islands forms part of the Melanesian archipelago and is basically made up of Melanesian people with small percentages of several other ethnic groups.

At the 1976 Census, there were 196,823 people in the Solomon Islands. This compares with 160,988 in 1970. Melanesians made up 93.3 per cent of the population in 1976. Polynesians 4.0 per cent, Micronesians (Gilbertese) 1.4 per cent, Europeans 0.7 per cent, Chinese 0.2 per cent and others 0.7 per cent.

The observed annual growth rate between censuses was 3.4 per cent - a figure which ranks as one of the highest in the world. This growth rate is equivalent to doubling the population every 20 years.

The following table gives details of the population and its breakdown in ethnic groups over the period 1931-1976:

Total Population by Ethnic Origin 1931-1976

Ethnic Group	1931	1959	1970	1976
Melanesian	89,568	117,620	149,667	183,665
Polynesian	3,847	4,625	6,399	7,821
Micronesian	-	459	2,362	2,753
European	478	781	1,280	1,359
Chinese	164	366	577	452
Others	9	255	713	773
Total	94,066	4,076	160,998	196,823
Inter-census Growth Rate (%)		1.0	2.6	3.4

The above table provides information on the total picture. It is noted, however, that the Solomon Islands' own population is largely covered by the ethnic groups of Melanesian, Polynesian and Micronesian. These are the groups which will be permanently living in the Solomon Islands -

the others are mainly those who may be in the country for relatively short periods and their growth depends on factors other than fertility, etc.

The real growth rate of Solomon Islanders is, therefore, a more useful indicator:

	Average Percentage Per Year Growth Rate		
	1959/31	1970/59	1976/70
Melanesians	1.0	2.4	3.5
Polynesians	0.7	3.3	3.4
Micronesians	-	17.8	2.6
	1.0	2.6	3.5

The future

Based on a relatively sophisticated approach to population projections, the Statistics Office prepared estimates of the population for 1978 and 1985. Given the population in 1976 at 197,000, the projection for 1985 is 268,000. That is a net increase of 71,000 people in the 9-years' period or an annual growth rate of 3.3 per cent. If this growth rate continued until the year 2000 (22 years in advance), the population would be 434,000 or over twice the population at the last census.

The figure in 1985 of 268,000 is arrived at by studying the fertility rates at the last census. The following details might be of interest:

Table A. No. of Women by Age Group (1976)

Age group	15-19	20-24	25-29	30-34	35-39	40-44	45-49
No. of women	9,266	7,505	6,859	5,526	4,574	3,621	3,263

Table B. No. of Women in Age Group 15-49

1970	1976	1980	1985	1990	1995	2000
34,930	40,614	45,846	53,051	62,200	72,700	85,500

Table C. Fertility Rate by Age Group (1975)

	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Children born alive in 1975	1,117	2,312	2,380	1,793	1,074	540	172
Annual Births per 1,000 women	121	308	347	324	235	149	53

Given the fertility rates above, this means a population growing rapidly. At a certain point, even given a reduction in fertility, the number of live births itself will cause concern. If the population continues growing at such a rate then the economy will be stretched too far. More and more people are demanding better opportunities, more employment, better health facilities, improved levels of education and more food. With society changing to a more monetary-based type, customs breaking down and people having to move to other islands, other inherent problems will emerge.

Approximately 48 per cent of the people will be under 15 years of age, 42 per cent will be in the potential labour force (15-49 years) and 10 per cent will be 50 years or over.

The actual numbers, however, point to the size of the problems to be faced:

	1970	1976	1985
0 - 14	71,761	94,178	131,643
15 - 49	72,411	83,108	109,160
50 +	16,826	19,537	27,647
	160,998	196,823	268,450

The potential labour force will grow from 83,108 to 109,160, an increase of 14,982 but the number of children (0-14) will have increased from 94,178 to 131,643 or 37,465.

The growth rate of the labour force is 3.1 per cent compared to that of the children group of 3.8 per cent per year. Consequently, the growth of productive manpower is not keeping pace with the growth of population over the duration of the plan. This alone will tend to produce considerable pressures not only in achieving development but also in providing basic services.

Nine per cent or 18,200 of the population were in monetary employment in 1978; by 1985 to maintain present levels, 24,200 will have to be in monetary employment - a need to provide another 6,000 jobs.

In education, in 1976, 28,700 or 15 per cent of the population were attending school. By 1985 to maintain that level, school places will have to be found for 31,100, an increase of 2,400. That will only keep the enrolments at 60 per cent of school-age children.

Increasing the number of schools to keep up with enrolments means providing more teachers. In 1976 the ratio of enrolments to teachers was 23:1, but by 1985 this means that 104 more teachers will be required.

In health, in 1978 there were six hospitals (approx. 660 beds) and 130 clinics. This gives a ratio of 320 people per hospital bed and 1640 per clinic. By 1985 the number of hospital beds has to increase to 840 and the number of clinics will need to go up to 163 to maintain present levels.

There were 466 nursing staff in 1978 - a ratio of 1:460 people - by 1985 to keep the ratios the same there will be a requirement for 584 nursing staff. This does not take account of the various skills needed for certain types of nursing, e.g. hospital versus clinic, but it indicates that there will be a requirement for 25 per cent skilled manpower not to improve services, but to keep present levels.

Status of population education

The rate of growth has been one of the major worries in the world for many years. The major questions to be faced in the future, given the rate of growth, are whether the country has the ability to feed the future population, to adequately house them, to provide the basic services such as health and education facilities, to meet the skilled manpower requirements and provide employment opportunities. The cost of basic services always increases as there is a need to try and maintain standards at certain levels - but also as there is an attempt to improve the services being provided to bring general living standards up.

Many countries in the world have the same basic problems of high population growth rates. It is a relatively universal problem which will, if it continues, tend to highlight other problems that will have to be faced in the future. High growth rates will tend to mean that available sources such as finance and manpower will be steered into unproductive areas such as education and health. Fewer resources will be available for development purposes and improvement of standards of living.

As previously pointed out, population education has status in the world community and an important role to play in curbing disturbing population trends. Consequently, it is morally obligatory for a country such as ours to accord a significant role to population education within various areas of our social framework.

Population education in the Solomon Islands is not offered as a separate subject. There is an element of integration of aspects of population education in the in-school sector, specifically the secondary school system. There are two types of secondary schools presently operating in the country; the national secondary system consisting of a five-year course, and the provincial secondary schools. Social studies deals with population growth as one of the world's many problems, while in provincial secondary schools development studies focuses on population in the Solomon Islands not so much as a problem but as one of

many factors affecting choices in development. The I.L.O. Population Comics used in the schools with emphasis on employment rather than population. Home economics are common to both systems, include some 'family spacing' discussion and health topics. In science and agriculture principles of spacing and distribution are dealt with but not with an analogy drawn to family planning.

In the out-of-school sector there are certain organizations which include aspects of population education. The Solomon Islands Planned Parenthood Association (SIPPA) is moving away from the clinic-based to a more integrated approach which includes nutrition, health education, and contraceptive advice. The Solomon Islands Women's Interest Group works closely with SIPPA in achieving the objectives of this integrated approach. The second area of population education aspects input is the health education section of the Ministry of Health and Medical Services. This health education section, using an integrated approach and working closely with the Women's Interest Group, moved into many areas, for example, sanitation, water, village health, aid worker training, nutrition, and immunization programmes.

Needs in population education

1. Needs justification

The population of the 1976 Census was 196,823 - at the beginning of 1980, it is estimated that the Solomon Islands will have approximately 225,000 people. By 1985 this population will be 268,000 (based on present projections).

There is no doubt that the Solomons can take this population, nor any doubt that the country can support a population twice the size. There is sufficient land for more people. The contention is that the very high growth rate presently being experienced will result in a very significant population growth in absolute figures in a very short time. This, in itself, will cause pressures and problems which not only use up all available resources of finance and skilled manpower but mean that it will become exceptionally difficult for the country to maintain present standards of living of its people, let alone move forward to a point where people will generally be better off. Resources will be used up in what are considered as unproductive areas and many people will encounter a negative shift in the standard of living.

A smaller rate of population growth will enable people to partake in development, the available financial and manpower resources to be allocated to productive areas and improvements to be made to key sections of education and health (among others). Efforts can be directed to improving subsistence production, spreading cash opportunities, reviewed communication and transport problems.

A growth rate of 2 per cent per year as compared to the present 3.4 per cent would seem to be within the bounds of acceptability.

2. Goals of a programme

The following three statements should be the principal aims of any population education programme.

a) To develop an understanding of the factors causing rapid population growth and urbanization, and to appreciate the interrelationships between population change and quality of life.

b) To develop responsible attitudes towards population-related issues and to act in accordance with such attitudes.

c) To develop an understanding of the population policies and programmes of one's own country and to contribute towards their attainment.

3. The programmes

The development of responsible attitudes is central to population education and is therefore crucial to the successful outcome of any programme. Since the programme objectives fall primarily into this affective domain, the programme infrastructure must be carefully planned and implemented. Within the planning strategy, strong consideration must be given to ascertaining the acceptability of population education programmes to the community. A corollary to this would be the necessity for some initial information programme which would provide the community with a basic understanding of population education. With this understanding, they would hopefully be able to respond meaningfully to the 'acceptability' questionnaire or interview instrument presented to them. The time lapse between the information delivery and the acceptability investigation would need to be of as short a duration as possible.

Planning and implementation must be the concern of a wide range of educators, administrators and community leaders; people not only directly involved in programme planning and/or implementation, but also those who would not have a direct input, thus maintaining an objectivity in the overall programme administration.

4. Programmes in the in-school sector

The traditional source of population education input must be the primary/secondary education systems. The development and implementation of population education programmes should be the concern of the relevant curriculum development panels, in close collaboration with experienced 'out-of-school sector' personnel including community leaders.

The next area for consideration would logically be the tertiary education sector. In the Solomon Islands the responsibility lies primarily with two government institutions, the Solomon Islands Teachers' College and the Honiara Technical Institute. (There are also extension courses run by the University of the South Pacific). The Technical Institute might well be considered an appropriate adult education input for population education programmes while the Teachers' College would need to play a more significant role. The present primary Teachers' Certificate course would clearly be ideal for a population education programme and if the learning package approach (mentioned earlier) comes to fruition then the certificate course would have to include a population education teaching component. In the near future, (1981 to be precise), the Solomon Islands Teachers' College will offer a three-year diploma of education course catering for both primary and secondary teacher training. The course content is currently undergoing committee examination and it would seem to be an opportune time for serious representation to be made for the inclusion of population education content and teaching strategies.

5. Programmes in the out-of-school sector

A growth rate of 2 per cent per year as compared to the present 3.4 per cent would seem to be within the bounds of acceptability. To achieve this rate, a more concentrated effort should be made on family planning - a family planning system that does not remove the right of people to have children, but one aimed at educating people about the implications for improved health, better education opportunities, and greater economic development resulting from reduced population growth. It is unlikely that the results of such an effort would be seen in the short term. The population in 1985 will be around 268,000 whatever course of action is taken. This does not mean, however, that efforts to this end should be postponed. A successful programme started now will yield benefits for the whole Solomon Islands before the end of this century.

There is a distinct possibility that, with careful consideration and planning, a population education programme could be initiated in conjunction with the primary health curriculum. The most likely form of delivery would be a learning package developed jointly with the relevant education section of the M.H.M.S. Compared to only 14 secondary schools, primary education is disseminated in 288 Government and 66 non-government controlled schools, making a total of 354 schools. The number of teachers vary from school to school but it is not just the number of primary teachers which is a significant factor when considering the selection of suitable personnel for delivering the afore-mentioned learning packages, but rather the fact that primary schools are mainly village-situated throughout the country. Therefore, if it was decided that the primary teacher was to be the chosen medium for such a dual health population education programme, such a decision would be based on three positive factors. The first, as stated, is the teachers' geographical location, while the second is the fact that the primary teacher is already trained

in instructional skills. The third and final factor refers to the status of the teacher. As mentioned previously, the objectives of population education lie within the affective domain and so the person chosen to implement such a programme should have a high degree of acceptability within the community. A teacher has already achieved status within the village community and is an integral part of the village society, thus imparting a high degree of acceptability and likelihood of success to the programme package.

The delivery of any educational service must take into account the geography of the Solomon Islands, and serious consideration must be given to utilizing radio broadcasting. 'Schools Broadcasting' is currently re-examining its role in the delivery of educational programmes and this might well be the appropriate time for the inclusion of population education material.

Summary statement

The population situation of the Solomon Islands is one which indicates an unacceptable growth rate thus impinging on many aspects of social and economic development. The only acceptable method of curbing this growth rate is the implementation of effective education programmes. Taking into account the planning, personnel selection and possible areas of input mentioned in this paper, population education could be a viable proposition in the Solomon Islands.

TONGA

Introduction

Awareness of the population factors of births, deaths and migrations and their effects on and relation to the well-being and activities of a community is a recent phenomenon in Tonga.

The reason is that it is only in the second half of this century that population changes have become sufficiently marked to attract attention. In the past, there was very little change in Tonga's population, either in size, composition, or distribution. The birth rate was more or less equalled by the death rate; Tonga was too small, too poor in economically profitable resources, too isolated from the world's trade routes to attract the colonizing interests of either the world's powers or its neighbours; transport between the scattered islands was too slow and difficult to permit large scale movements either within, or to and from Tonga.

Therefore, it is only in the second half of this century that Tonga has really emerged from its geographic isolation to participate more actively in regional and world affairs. This increased contact has brought many significant changes to Tonga's population. Its size has doubled in the last twenty-five years. Improved transportation has greatly facilitated both internal and external population mobility. Urbanization, emigration and tourism are only some of the overt effects of this mobility.

These population changes have been significant enough to stimulate not only national awareness of population factors, but also serious concern about their implications.

This paper will look first at the growth of Tonga's population over the last few hundred years; it will then look at the population patterns today, and finally it will consider the needs of population education and its attendant problems.

Population growth - historical perspective

Tonga's population, before 1900, grew at a very slow rate. It remained more or less constant over the two-hundred-year period between 1600 and 1800. In the following century, however, the civil wars, which interrupted food production, resulting in periods of acute food shortages, and low resistance to newly-introduced European diseases, were effective factors in the reduction of Tonga's population. When Captain Cook visited Tonga in the 1770s the population was about 30,000. In 1900 it had declined to 20,000.

The first 50 years of this century saw the population growing again. The years following 1950, however, have been years of unprecedented growth.

E.A. Crane, in his analysis of the Tongan population situation, attributed the rapid increase in this century to the following:

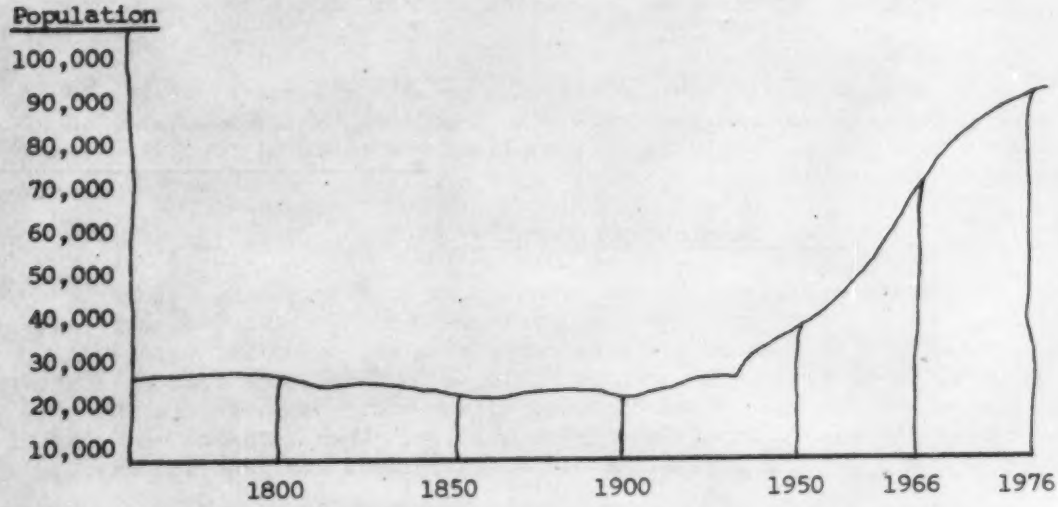
1. Law and order had been set up and the settled government of a united Tonga under King George Tupou I allowed for peaceful development.
2. The well-established Christian Church had stimulated the desire for personal improvement and education.
3. Trade and commerce had improved living standards, with more money for food, and improved housing.
4. Improved health measures with modern hospitals, better medicines and child welfare had improved health: more babies were surviving, and people were living longer.

Tongan customs and culture have also contributed in no small measure to population growth. But this aspect will be discussed later.

The rapid growth of the population is continuing. Between 1966 and 1976, the population increased from 77,000 to 90,000, an increase of 16 per cent.

The following graph demonstrates population growth over the years.

Figure 1: Line graph showing population growth in Tonga



Population patterns

The 1976 Census gave a total population of 90,126 for Tonga. An analysis of the data of the 1976 Census and the other two official censuses of 1956 and 1966 reveals some interesting patterns and trends. Some of these are the discrepancies in the recorded and predicted figures for the sub-total and total population, age distribution, male/female composition of the population, geographic distribution, racial composition, occupational distribution, and migration and urbanization. This section will briefly look at each of these in turn.

1. Comparison of the three official census figures with one of the forecasts made.

The 90,126 population total for Tonga in 1976 constitutes an increase of 16.4 per cent on the 1966 population figure but it is much lower than many of the forecasts made during the late 1960s, early 1970s and mid 1970s, which predicted figures of 100,000 and over.

The following table compares the three official census (1956, 1966, 1976) figures with one of the forecasts made (Lorenzo, 1968):

Table 1: 1956, 1966, 1976 and Lorenzo figures

	1956	%	1966	%	1976	%	Lorenzo 1976	%
Below 15 years	24,964	43.9	35,745	46.2	40,059	44.4	40,283	39.4
15 years & over	31,876	56.1	41,684	53.8	50,067	55.6	61,813	60.6
	56,840	100.0	77,429	100.0	90,126	100.0	102,096	100.0

The main problem with population prediction as related to Tonga is the lack of proper records. Official figures are not always valid records of population factors. For example, a comparison of the 1976 with the 1966, 15-and-over age groups, reveals that 14,335 people who were enumerated in 1966 have 'disappeared' by 1976. These discrepancies are not fully accounted for by the official death and migration figures for the period. There is reasonable doubt about the validity of the number of deaths recorded in the Annual Reports of the Ministry of Health and Justice Department. The actual recorded deaths for the period 1966-1976 of 2,547 may have actually understated the number of deaths. There is similar doubt about the validity of the migration figures.

However, although there is reason to doubt the accuracy of the details, the broad patterns indicated by the data remain valid.

2. Age distribution

The 1976 Census revealed that most of Tonga's population are young people. Forty-five per cent of the Tongans were below the age of 15, as these figures show:

Age groups	1976	
0 - 4	12,947)	45%
5 - 14	27,515)	
15 - 64	46,969)	55%
65 +	2,697)	

The 45 per cent, however, constitutes a slight drop from the 1966 figure which was 46 per cent. A closer look at the details of age distribution in the 1976 Census indicates that the birth rate is dropping. There is no way of telling whether this trend will continue but it may be explained in terms of the Family Planning Movement, increased migration and growing affluence, which are resulting in changed values and attitudes towards family and kinship ties. Both tables 3 and 4 show the drop in birth rate.

Table 2: Age and number of children, 1976 Census

Age	Number
0	2,288
1	2,458
2	2,542
3	2,630
4	2,618
5	2,640
6	3,002
7	2,874
8	3,094
9	2,764
10	3,017

Table 3: Comparison of 1966 with 1976 census age figures

	1966	%	1976	%
0 - 4	14,356	18.5	12,947	14.4
5 - 14	21,465	27.7	27,515	30.5
15 - 64	39,187	50.6	46,969	52.1
65 +	2,421	3.2	2,695	3.0
	77,429	100.0	90,126	100.0

There has been a significant dropping off of the 0-4 age group proportion 18.5 (1966) to 14.4 (1976) which reflects the drop in births. The rise in the 5-14 age groups from 27.7 to 30.5 per cent and 50.6 to 52.1 per cent respectively reflects the flow-through effect of earlier high birth rates. The slight reduction in the proportion of the 65 + age group does not augur well for an increasing life expectancy for the Tongan population.

3. Sex composition

The table below shows some interesting patterns. The males are predominant in most age groups. The expected exception is in the older age group where the females predominate. The unexpected exception is in the 25-44 age group. This probably reflects migration patterns and may have affected the birth rates.

Table 4: Male/female by age groups

Age	Male	Female	% of Total
0 - 4	6,568	5,968	13.9
5 - 9	7,455	6,920	15.9
10 - 14	6,847	6,280	14.6
15 - 19	5,463	5,069	11.7
20 - 24	3,829	3,700	8.3
25 - 29	2,679	2,832	6.1
30 - 34	2,280	2,505	5.3
35 - 39	2,239	2,294	5.0
40 - 44	1,985	2,001	4.4
45 - 49	1,740	1,738	3.9
50 - 54	1,476	1,382	3.2

Age	Male	Female	% of Total
55 - 59	1,179	1,058	2.5
60 - 64	835	773	1.8
65 - 69	617	538	1.3
70 - 74	398	416	0.9
75 - 79	235	298	0.6
80 - 84	119	121	0.3
85 +	76	141	0.2
NS	37	35	0.1
	51.1%	48.9%	100.0

4. Geographic distribution within Tonga

The trend towards concentration in Tongatapu continues, with Ha'apai losing most people in the shift but Vava'u also contributing significantly. The largest percentage increase was recorded for 'Eua at 32.3 per cent resulting in the increase of 0.5 per cent in the share 'Eua has of the total population. The overall pattern appears to reflect judgement by the people about the economic and social possibilities of each major district. There is no evidence that this trend and pattern of settlement will change during the 1976-1986 decade and beyond.

Table 5: Distribution of the population over the five main districts compared to 1966

Districts	1976	%	1966	%	Change	%
Tongatapu	57,437	63.7	47,920	61.9	9,517	19.9
Vava'u	15,065	16.7	13,533	17.4	1,532	13.3
Ha'apai	10,810	12.0	10,591	13.7	219	2.1
Niuas	2,328	2.6	1,994	2.5	334	16.8
'Eua	4,486	5.0	3,391	4.5	1,095	32.2
Total	90,126	100.0	77,429	100.0	12,697	16.9

5. Racial composition

Tonga is very much a single ethnic country and this is reflected in the racial composition of the population. Ninety-eight per cent of the entire population is of Tongan descent.

Component population	%
Tongans	98.31
Europeans	0.42
Part Europeans	0.66
All others	0.61
	100.00

6. Occupational distribution

The 1976 Census defined 21,435 people as being in the Labour Force (18,626 actively working and a further 2,809 'actively looking for work'). This Labour Force, representing 23.8 of the total population, compared to 24.7 per cent in 1966 and 25.1 per cent in 1956, was only 12.8 per cent up in 1966 although the total population had increased by 16.4 per cent.

There are several interesting points about the Labour Force:

a) Female participation rates had increased. The 1976 Census Labour showed a 205 per cent increase in the number of economically active women, which increased from 1,098 (1966) to 3,358 (1976) whereas the Male Labour Force had increased only 1 per cent from 17,900 (1966) to 18,077 (1976).

b) The occupational profile of the 1976 Census Labour Force showed a significant shift, in both numerical and proportional terms, from the agricultural to the non-agricultural sectors.

The following table highlights the comparison and change of principle occupations:

Table 6: Population by Occupation

Census	Agriculture		Non-Agriculture	
	No.	%	No.	%
1956	10,303	72.2	3,967	27.8
1966	14,064	75.2	4,638	24.8
1976	9,425	50.6	9,201	49.4

The 1956 and 1966 Census assumed there was no unemployment in Tonga; if a man was not formally employed then he was a farmer. The 1976 Census enumeration

required a specific response that indicated that a person was not simply engaged in activity for personal or family purposes but was engaged in work for pay or gain.

c) The distribution of 'employment' over the five districts is generally the same proportion as with the general population, as this table shows:

	Tongatapu	Vava'u	Ha'apai	'Eua	Niuas
Employment	64.1	17.1	11.3	4.8	2.7
Total population	63.7	16.6	11.9	4.9	2.6

7. Migration and urbanization

a) Migration. The number of Tongans who migrated between 1966 and 1976 is difficult to determine. The official records probably underestimated the number. It is also difficult to predict whether the high rate of migration will continue in the next decade or not.

The following table, however, is the official record of the number of people who left Tonga between 1969 and 1974:

Table 7: Emigration of Tongans: 1969-1974

Year	Number
1969	1,550
1970	2,056
1971	3,720
1972	4,752
1973	5,585
1974	7,209

This total of 24,872 represents 25 per cent of the entire population and 40 per cent of all adults. Most of these migrated to New Zealand and of the 11,342 who went there, 8,356 were males and 2,986 were females. The other 13,530 migrated to the U.S.A., Canada and Australia and other Pacific Islands.

The validity of these figures is questionable. These are records of people who were recorded as leaving Tonga but there is no record of how many of them have

returned to Tonga, either by choice or through deportation. There is reason to believe that about half the number, who went to New Zealand, have been sent home as 'overstayers'. A similar number would have been returned from other countries. The net migration for the period then after some adjustments would probably be about 15,000.

b) Urbanization. While Tonga's population has been growing fast, the population of Nuku'alofa has been growing twice as fast. In 1939, there were less than 4,000 people living there; in the past 40 years, it had increased fivefold to its present population (1976) of 18,396. Almost ¼ of all Tongans (24.1 per cent) live there. Its day-time population swells to far more than this as hundreds of workers and sellers of handicrafts and agricultural produce commute into it by buses from all the villages of Tongatapu. During the year, its population is artificially inflated by hundreds of school children who come down from the northern islands every academic year to attend secondary schools.

The rapid growth of the population of Tongatapu and Nuku'alofa has been due more to migration from other parts of Tonga than to natural increase (i.e. excess of births over deaths).

8. Population issues

The changes in population in this second half of the century have raised a number of issues and problems:

a) The rapid growth of the population, as indicated by the fact that it doubled itself in twenty-five years, has greatly increased the demands on social services, such as health and education. The efforts of the country to provide these services for its growing population is retarding development and placing severe strains on its economy.

b) Land, one of Tonga's main resources, is diminishing as its population increases. By law, every male who reaches the age of 16 is entitled to 8¼ acres of bush allotment. Today, it is very difficult for males of 16 to acquire this bush allotment to which they are entitled. A recent legislation to confiscate the land of those who have become citizens and permanent residents of other countries has been passed, and although this will make more land available, it will by no means meet the present demands.

However, despite the assumed land shortage, it is interesting to note that the 1976 Annual Report of the Ministry of Land and Survey reported that there was a total of 15,554 tax allotments registered at the end of 1976. The 1976 Census Analysis of Principal Occupations shows 8,775 people as 'farmers'. Both the 1966 and 1976 Censuses reported 8,305 and 8,430 people respectively as stating that they had registered tax allotments. No obvious explanation appears for the discrepancy but the Land and Survey figure suggests an upper limit to the number of Tongan 'farmers'. The 6,779 tax allotments 'without the farmers' could of course be land tied up in the noble's estates.

c) Heavy migration from the rural areas is resulting in overcrowding in the capital, which in turn is creating serious administrative, economic, social, legal and environmental problems. At the same time, the movement of the most able and productive people from the rural areas is in fact depriving those areas of human resources, as well as needed development.

d) The percentage of productive people is diminishing while the percentage of dependent people is increasing. This means that a decreasing number of people have to produce a great deal more to support an increasing number of dependents.

e) Development is not keeping pace with population growth. The result is increasing unemployment especially among school leavers, and a high rate of migration, especially among the productive males. Migration has resulted in a tremendous increase in the number of 'broken' homes due to males going off overseas on short work permits and never returning.

Tonga must be the only country which balances its foreign trade with remittances sent home by Tongans working overseas. Although the money means better housing and better living standards, these in themselves will never be adequate compensation for the loss of a stable home life.

The fact that female participation rates in the Labour Force has increased in the 1966-1976 period by 205 per cent may merely be an indication that more and more women are being forced to work to support themselves and their children while errant husbands overstay in New Zealand, Australia, or the United States.

Population education - its status in the formal and non-formal sectors

It is only recently that there has been awareness of the need for population education.

In the in-school situation, it would not be true to say that there is none at all, but it would be true to say that the population concepts which are presently taught in both primary and secondary curricula are there more by accident than by design. An examination of the content of likely subjects such as social science, history, geography, biology, basic science, home economics, health education, and mathematics, indicate that these subjects do in fact teach a lot of population concepts. For example, Fifth Form geography requires a study of population changes within Tonga. Form I home economics looks at the special qualities which differentiate a home from a mere 'house'. The Form IV social science has a special unit on family planning. However, there is no overt emphasis on population education concepts nor on the relationship of these concepts either to development of quality of life, or life styles of any particular group.

If population education is a newcomer to the in-school situation, it is even more so in the out-of-school situation. However, quite a number of ministries are involved in community services. The Health Department has several divisions looking after different aspects of community service: the Family Planning Unit looks after birth control and population education generally, the Public Health Division looks after sanitation and the education of the public in this aspect, the District Nurses work with mothers in the villages in the areas of child care, hygiene and nutrition.

The Agricultural Department has an Extension Section which includes home demonstrators who work with the village people to improve home skills.

In the private sector, there are both inter-denominational groups and church bodies, especially women's and youth groups, which are assisting villagers to develop and to improve standards of living and vocational skills. However, there is no attempt to co-ordinate these efforts and they tend to be fragmented and repetitive. A national organization of women has recently been set up and there are plans to establish a national youth organization. Either one of these two bodies could provide the infrastructure for the out-of-school situation.

Problems and issues

There is no denying that there is need for population education. The population issues discussed earlier, clearly indicate that population changes are impinging on the processes of development and are already affecting the quality of life of the Tongan people.

However, although this is acknowledged, there is some hesitation about a full-scale adoption of population education programmes. The main reason is cultural. The whole structure of Tongan society and its culture are based and dependent on the kinship system and the extended family. Many of the social services provided in other countries by an impersonal social services system, such as old age bonus and pension, and child welfare, are in Tonga provided by the extended family and the quality of this service and its continuing existence are in fact dependent on the size of the families. Population control is of course only one aspect of population education, but the official adoption of this programme in Tonga might well depend on this one issue. Therefore, although Tonga is willing to adopt a population education programme, and although it agrees in principle that the emphasis ought to be on the out-of-school programme, which would have immediate impact, it also acknowledges that such a programme would need wide communal and political support. There is insufficient evidence at present that such support would be forthcoming.

Tonga's main efforts in population education at this point in time would concentrate on the in-school programme. The aim is to enrich the existing curricula to include population concepts. The main constraints on the adoption of such a programme would be lack of expertise and resources. We need therefore to:

1. train curriculum developers who would be capable of understanding population concepts;
2. identify suitable concepts for introduction at the various levels;
3. select the most suitable content areas in the existing curricula through which these concepts could be introduced;
4. select the most suitable learning activities through which these concepts could be taught;
5. select suitable methods for teaching these concepts;
6. select suitable resource materials for the teaching of these concepts; and
7. make available the resources, both human and material, that would facilitate the development and implementation of such a programme. The assumption is that materials would have to be developed, written and printed for use by teachers and students at all levels of the primary and secondary school systems. It is also assured that all teachers who would be involved in the implementation of the programme would be trained in the philosophy, content, and methodology of the materials.

It is realized, of course, that Tonga on its own cannot hope to solve its problems in this area. But with the opportunity to exchange information and knowledge with countries more advanced in this field as provided in this seminar-workshop, Tonga should be able to go some way towards acquiring the necessary expertise to start a programme in population education.

PART FOUR

ANNEXES

ANNEX I

AGENDA

1. Inaugural session
2. Election of officers of the seminar
3. Review of country experiences
4. Orientation to population education
5. Curriculum development in population education
6. Guidelines for project development
7. Assessment of country needs
8. Preparation of country plans for population education
9. Assessment of sub-regional needs and requirements
10. Consideration and adoption of the report

ANNEX II

ANNOTATED AGENDA

1. Inaugural session

2. Election of officers of the seminar-workshop

The participants will elect a Chairman, a Vice-Chairman and two Rapporteurs. The Secretariat of the meeting will be provided by the Unesco Regional Office for Education in Asia and Oceania, UNFPA Coordinator for the South Pacific and University of the South Pacific, Suva, Fiji.

3. Review of country experiences

The participants will present their country papers for discussion highlighting the following points:

a) Population situation
b) Population characteristics
c) Status of population education (in-school and out-of-school)
d) Problems and issues if any for launching a national population education programme.

4. Orientation to population education

The participants will be given orientation to the concept of population education, the status of population education in the Asian Region, problems and issues of introducing population education, population and development and other relevant topics.

This will be done through lecture-discussions.

5. Curriculum development in population education

The participants will get the experience of developing curriculum in population education for the in-school as well as out-of-school sectors.

6. Assessment of country needs

In the light of the review of experience in population education, the participants will identify basic needs in population education for each country. These needs might be in the areas such as the following:

a) Awareness and orientation for different categories of personnel

b) Curriculum and materials development including audio-visual aids

c) Training of different categories of personnel

d) Research and evaluation in population education

e) Materials and equipment

f) Technical assistance

7. Preparation of country plans

On the basis of the country needs and the guidelines of the preparation of project proposals, the participants will prepare country plans for population education. These plans will form the basis for the development of national project proposals for UNFPA funding. The national project proposals may be developed with the assistance of the Unesco Mobile Team in Population Education.

8. Assessment of sub-regional needs and requirements

The sub-regional needs and requirements will be identified by the participants. These will then form the basis for a sub-regional project on population education.

9. Consideration and adoption of the report

The discussion of the seminar will be embodied in a report which will be considered under the agenda item.

ANNEX III

SCHEDULE OF WORK

Monday, 1 October 1979	
09.00 - 10.00	Registration
10.00 - 11.30	Inauguration. Chief Guest - Sir Robert Munro, C.B.E., LL.B., President of the Senate
11.30 - 12.00	Election of officers, discussion and finalization of the schedule and orientation about the seminar
12.00 - 13.30	Lunch break
13.30 - 16.30	Review of country experiences
Tuesday, 2 October 1979	
08.30 - 10.00	Review of country experiences (continued)
10.30 - 12.00	Orientation to population education (Dr. R.C. Sharma and Dr. Ansar Ali Khan)
12.00 - 13.30	Lunch break
13.30 - 17.00	Demographic aspects of population education - slide/tape presentation (Unesco Team)
Wednesday, 3 October 1979	
08.30 - 10.00	Population education programme in Asia - in-school (Dr. R.C. Sharma)
10.30 - 12.00	Population education programme in Asia - out-of-school (Dr. Ansar Ali Khan)
12.00 - 13.30	Lunch break
13.30 - 15.00	Problems and issues in population (Unesco Team and USP)
15.15 - 17.00	Population and development: Panel discussion Panelists: Resource persons from USP and Unesco Team
Thursday, 4 October 1979	
08.30 - 10.00	Approaches to curriculum development in population education in Asia and Oceania (Dr. R.C. Sharma)

Thursday, 4 October 1979 (continued)	
10.00 - 12.00	Integration of population education in development programmes for out-of-school youth and adults (Dr. Ansar Ali Khan)
12.00 - 13.30	Lunch break
13.30 - 16.30	Practicum on curriculum development in school and out of school (group work)
Friday, 5 October 1979	
08.30 - 12.00	Group work (continued)
12.00 - 13.30	Lunch break
13.30 - 16.30	Presentation of group reports in the plenary
Saturday & Sunday, 6 & 7 October 1979	
All day	Free / Field trip
Monday, 8 October 1979	
08.30 - 09.30	Guidelines for the development of project proposals (Miss Jyoti Amaritlal)
10.00 - 12.00	Assessment of country needs - in school and out of school (country groups)
12.00 - 13.30	Lunch break
13.30 - 16.30	Assessment of country needs (continued)
Tuesday, 9 October 1979	
08.30 - 12.00	Presentation of group reports on assessment of country needs (plenary session)
12.00 - 13.30	Lunch break
13.30 - 16.30	Presentation of tentative plan for population education (country groups)
Wednesday, 10 October 1979	
08.30 - 12.00	Preparation of plan (continued)
12.00 - 13.30	Lunch break
13.30 - 16.30	Preparation of plan (continued)
Thursday, 11 October 1979	
08.30 - 12.00	Presentation of country plans (plenary session)
12.00 - 13.30	Lunch break
13.30 - 16.30	Assessment of sub-regional needs and requirements

Friday, 12 October 1979

08.30 - 12.00	Preparation of draft report of the seminar
12.00 - 13.30	Lunch break
13.30 - 14.30	Adoption of the report
15.00 - 16.00	Closing

ANNEX IV

LIST OF PARTICIPANTS

Fiji

1. Mr. R.S. Dube
   Senior Education Officer (Social Science)
   Curriculum Development Unit
   Ministry of Education
   Suva

2. Mr. Parmanand Maharaj
   Senior Education Officer (Science)
   Curriculum Development Unit
   Ministry of Education
   Suva

3. Mr. Jone Ravuikadavu
   Senior Education Officer (Social Studies)
   Curriculum Development Unit
   Ministry of Education
   Suva

4. Mr. Joe Roqica
   Principal
   Central Fijian Secondary School
   P. O. Box 41
   Nausori

5. Mr. Mohammed Usman Ali
   Principal
   Lautoka Muslim High School
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   Lautoka

6. Mr. J. Prasad
   Lecturer
   Nasinu Teachers' College
   Private Mailbag
   Suva

7. Mrs. Litiana Seniloli
   Assistant Teacher
   Ratu Sukuna Memorial School
   Suva

8. Br. Fergus Garrett
   Marist Brothers Training Centre
   Lomeri, P.A.
   Via Suva

Papua New Guinea

9. Miss M. Charrington
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10. Mrs. Hagara Vele
Headmistress
Hohola Demonstration School
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Boroko

11. Mr. Gaspar Sorea
Acting Social Science Master
Kupiano High School
P. O. Box 39
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12. Mr. Rochas Birao
Lecturer (Social Science)
Port Moresby Teachers' College
P. O. Box 1791
Boroko, National Capital Province

13. Miss Susan Andrews
Curriculum Officer
Environmental Education & Information Section
Office of Environment and Conservation
Central Government Offices
P. O. Ward Strip, Waigani

Solomon Islands

14. Mr. Geoffrey Siapu
Chief Education Officer
Ministry of Education and Training
Honiara

15. Mr. John Fitzgerald
Senior Lecturer (Curriculum Development)
Solomon Islands Teachers' College
P. O. Box 1
Honiara

16. Mr. James Sulimae
Health Education Officer
Ministry of Health and Medical Services
Honiara

17. Mr. Edward Kingmele
Executive Director
Solomon Islands Planned Parenthood Association
Honiara

Tonga

18. Miss 'Ana Taufe'ulungaki
Senior Education Officer
P. O. Box 61
Nuku'alofa

19. Miss 'Ainise Tohi
Tongan Counterpart for the Development of the Home Economics Curriculum for Secondary Schools
Ministry of Education
P. O. Box 61
Nuku'alofa

20. Mr. Toni Kaihau
P. O. Box 49
Atele

21. Miss Mele'ana Puloka
Queen Salote College
P. O. Box 116
Nuku'alofa

22. Mrs. Tuna Fielakepa
Senior Inspector of School (Primary)
Ministry of Education
Nuku'alofa

Resource persons

1. Mrs. Konai Thaman, School of Education, USP.
2. Mr. Rajesh Chandra, School of Social and Economic Development, USP.
3. Dr. Randy Thaman, School of Social and Economic Development, USP.
4. Mrs. Penelope Meleisea, School of Social and Economic Development, USP.

Secretariat

1. Dr. R.C. Sharma, Specialist in Curriculum Development in Population Education, Unesco Regional Office for Education in Asia and Oceania, Bangkok.
2. Dr. Ansar Ali Khan, Specialist in Population Education in Out-of-School and Adult Education, Unesco Regional Office for Education in Asia and Oceania, Bangkok.
3. Mr. Michael Heyn, UNFPA Coordinator, Suva.
4. Mr. John Weeks, Director, Institute of Education, USP.
5. Dr. Prem Udagama, Fellow, Institute of Education, USP.
6. Mr. Narottam Bhindi, Assistant Registrar, USP.

ANNEX V

WELCOME ADDRESS BY DR. JAMES MARAJ, VICE-CHANCELLOR, UNIVERSITY OF THE SOUTH PACIFIC

Colleagues, friends, ladies and gentlemen.

Quite often at the University I have the pleasure of welcoming groups who come onto this campus for a variety of activities. I regard that not only as a privilege by virtue of my office, but I think it is important too that on those occasions, when I am called upon to perform this duty, that I take that opportunity to make a few comments that I hope would be of interest to you.

Let me first of all say that the exercise which we are about to launch, is regarded of considerable importance in its own right. But also I am particularly pleased to welcome the delegates and participants from Papua New Guinea, Fiji, Solomon Islands, Tonga are all parts of our parish, so to speak. The University as you know, works in support of the needs of eleven countries in this region. Papua New Guinea is not one of the University countries in the sense that they have their own two universities, if not more, but the fact that co-operation in this region does not observe the divisions that had been imposed upon us in the Pacific, either historically or linguistically, makes me particularly pleased to have with us participants from Papua New Guinea. That does not mean that I am less happy to see my friends and colleagues from Fiji or from the Solomon Islands.

While your chief guest is Sir Robert Munro, it is perhaps presumptuous of me to attempt to say anything about population at all. Let me, however, merely indicate that I am conscious of the fact that my colleagues in the Institute of Education, who are concerned with the development of curricula for this region, are aware that developments in curricula have to expand from the more narrow subject or knowledge base, in the traditional sense, to concern itself with such matters as family life education and population studies. I believe that the programme on which you are about to embark is a most important one for island communities and I am delighted that we should be able to have with us, Sir Robert Munro, who has done sterling work in this field for a number of years not only in this country but in other parts of the region.

Apart from being President of the Senate in Fiji, he is also the Legal Adviser to this University. We have not found it necessary to call on his services in that capacity too often and I hope we shall not need to do so. But when we have in the past, we have found his judgement and advice extremely sound and helpful. May I therefore on behalf of the University welcome you to this Campus, participants and all the delegates. I also welcome representatives of UNFPA and Unesco and the other collaborating agencies, and invite Sir Robert Munro, close friend and ally to speak to us.

ANNEX VI

OPENING ADDRESS BY SIR ROBERT MUNRO, C.B.E., LL.B., PRESIDENT OF THE FIJI SENATE

Distinguished and learned Vice-Chancellor, Your Excellency the Ambassador of the People's Republic of China, Deputy Vice-Chancellor, Ladies and Gentlemen:

This seminar-workshop on population education in the South Pacific is timely. Time, however, as Einstein has taught us, is mostly relative. Indeed, if time is of such great significance, as it is, this seminar-workshop would best have been held 15-20 years ago, but such is the state of thinking of man we never get around to these things until matters become really serious.

I am very happy to inaugurate this workshop and trust that it will be fruitful.

Why have the workshop?

I may only speak from the background of my own experience in the fields of population control and family planning. My involvement commenced in 1962 with the formation of the Family Planning Association of Fiji with the backing of the Government. Now, in co-partnership, the Government and ourselves, here in Fiji we met and overcame most of the difficulties surrounding birth control, and we liaised with several South Pacific countries, and particularly with Tonga, the Cook Islands, and Western Samoa. In those days, we avoided the term 'birth control' and adopted the euphuism of 'family planning' or 'planned parenthood', terms which still remain although they are not entirely satisfactory. The main problems and difficulties were:

1. Cultural inheritances, which are very strong right throughout the South Pacific
2. Politicians' reluctance to advocate birth control
3. Public reticence and personal shyness
4. Religious opposition
5. The creation of an atmosphere of public acceptance.

Those were the difficulties which we overcame, and the main problem or difficulty was, no doubt, that there was no inclusion in the school curriculum of family life education or of population education. Now we overcame a lot of the difficulties. Of course I am aware that in Fiji, human biology is now part of the school curriculum. I cannot speak

of other island territories. The results to date in Fiji have been really astounding. There has been complete public acceptance of the idea of 'planned parenthood'. The fertility rate has dropped fantastically. In a selection of less developed countries, Fiji heads the list in a 41 per cent decline in fertility. We headed Indonesia which only dropped down 29 per cent; Singapore 28 per cent; Taiwan 28 per cent; Hong Kong 27 per cent. The drop in fertility rate percentage, and the reduction in average family size has been miraculous in our multi-racial community. Our average national family size has been reduced from 6+ to 3+, with both major races exactly on 3+. Now I will leave these figures with my expert friends here but it is a wonderful, wonderful thing when you realize that here, in a multi-racial community, the two major races have been learning their lessons in the same way and have arrived at the same beneficial result - a reduction of the average family size from 6+ to 3+.

Now, why is population education necessary? Let me be a little immodest because if I am speaking without your knowing something about me, you won't be able either to credit or discredit me. I speak with confidence about these matters from my own experience which includes those two decades of family planning here in Fiji; membership of the Councils of the International Planned Parenthood Federation and its East and Southeast Asia and Oceania regional council; and participation in the 1974 World Population Conference in Bucharest and the recent International Conference of Parliamentarians on Population and Development at Colombo; and, I might add, with the widest reading and study of this matter.

Now, take it from me, if you are not already convinced, that population education is currently an absolute must in every civilized society. Population education, which is your conference problem, is of dire importance.

You remember our old literary friend, Gertrude Stein, who penned the famous line 'a rose is a rose'. When she was in extremes, she was asked by her life-long friend, "What is the answer?" to which she replied: "What is the question?" I will give you the answer very soon. Now, ex-Prime Minister Edward Heath, at the Colombo Conference, said this, and he said it with the utmost conviction and truthfulness - "Population and development are the most important matters in the world today." Hence, I would say, the necessity for the development of the world's and our regions' resources, and their fair distribution, and the control of population growth in relation to these resources. Each country is regarded as of a region or of the world. Hence, the necessity for education in population growth. That, I submit, is the answer to the question: the absolute necessity for education in population growth. It is a matter of delicate personal and political issues for it is quite a life topic, relating as it does to human sexuality which is surrounded by ignorance, myth and non-communication. Education, communication and training are the elements and pre-conditions for awareness and successful community participation in these problems of social development.

Currently the Third World, with 80 per cent of the world's people, still enjoys only 10 per cent of the world's income and we, in the South Pacific, are part of the Third World, euphemistically called the developing world. Now I'll give you a few thoughts from the recent International Conference of Parliamentarians on Population and Development just to highlight one of the reasons for the problem. I quote: "In the 25 years up to 1975 the total world population increased from just under 2,500 million to over 4,000 million. By the year 2000 it is expected to reach 6,200 million of which four-fifths will be in the developing countries with a substantial majority living in desperate poverty." I would remind you that we have some pretty hard conditions throughout the South Pacific.

"The implications of such increases are staggering. In the developing countries, between now and the end of the century, 800 million additional jobs will need to be created. This is more than the entire actively-employed population of the developed world at the present time. Problems of similar magnitude will be posed as far as the provision of food, water and shelter is concerned. In the developed countries, per capita consumption of resources, so much higher than in the developing world, has been the cause of much pollution, waste and environmental degradation. It has also contributed to world-wide shortages in key resources. Other questions such as the aging of the population and internal and international migration are becoming important."

What is the position then, in the South Pacific? We have limited resources, we have limited employment opportunities, we have indisputably gross unemployment and under-employment, and we lack the ability freely to migrate.

Now, let me quote from the speech of the Prime Minister of Sri Lanka at the opening of the Colombo Conference. He said, inter alia, "For many years the question of the increase of human numbers and their distribution was regarded as a specialized concern of social scientists, the medical profession and a few courageous and well-intentioned unofficial organizations and individuals." (Remember Lady Rama Rao of India, Mrs. Jensen of Sweden, Margaret Sanger of America, and a few others, brave wonderful women who inaugurated Planned Parenthood and Family Planning and some of whom went to jail for their pains. Those were the well-intentioned individuals who are now respected heroines.) They had realized the dimensions and the nature of the problem.

As long ago as the early 1950s, they were able to foresee the impact of a rapid population growth on the standard of living of the people in the developing world. However, they found it extremely difficult to persuade the governments of the time to generate the political will needed to recognize openly the seriousness of the problem. The urgent need to find the human balance between people and resources still remains."

"..... In Sri Lanka, as in most countries, government intervention was clearly needed and in the latter part of the decade a policy of regulating population growth was accepted in development planning ... (In Sri Lanka) we regard family planning and the technology that goes with it, not as an end, but as one of the means of serving the wish of the people to improve the quality of their lives and that of their families."

"..... What is the most significant factor which has made people prefer smaller families. In my opinion, it is education that has been the predominant factor which has brought about this change ... This has given our young people in Sri Lanka access to information and made them responsive to new ideas. These clarify their understanding of the relationship between personal conduct and human aspirations and national obligations."

To continue, it has now become clearly recognized throughout the world that population control is part of social and economic development. Also, it is part of maternal and child welfare. Population growth is an important component in development planning, in national development policies and strategies. There is a continuing interaction between population and food, education, unemployment, urbanization, the status of women and so on.

No country is exempt from the problems of population - population and development are the most important matters in world affairs today, as Mr. Heath said.

So, there must be education on population.

As educators, you are concerned with young people and with parents too. Younger generations of the Third World must come to realize, must be taught, that "better standards of living result when population growth is contained and families are stable." The most stable and prosperous countries of the future will be those best able to maintain balance between their population and resources.

I would hope that you educators who are here with us this morning for this seminar are now realizing, if you never realized it before, how deeply serious the problem is. Hence, the necessity I would say, for population education and a wide curriculum it should be - and not only for young people but for their parents too. It involves a study in each country of these things of its population trends and their impact on health, education, employment, agricultural and industrial development, housing and environmental conditions and of social and economic development issues generally. Also it involves a study in each country of family life and responsibility, of human biology and human sexuality.

This is what the Colombo Conference of Parliamentarians from 64 countries resolved and I quote: "It is of vital importance that tomorrow's parents and decision-makers understand the key linkages between fertility behaviour and national population change, available food and resources, consumption patterns and the environment, and that they be afforded the benefits of family life education and family planning services to encourage them to space their children and practise responsible parenthood." So, there is the situation, there is the problem, how do you educators propose to solve it? You just can't brush it under the carpet or under the table.

I thank you for this opportunity and wish you well.

ANNEX VII

REMARKS BY MR. MICHAEL HEYN, UNFPA CO-ORDINATOR, SUVA AT THE OPENING CEREMONY

Sir Robert Munro, Distinguished Guests, participants, friends and colleagues:

Whenever I am asked to speak at a seminar like this, it is always my deepest and fondest hope that I will have a chance to speak first and to speak particularly before the Guest Speaker because anything I may now say has probably been said already far better than I can put it myself. But that aside, I don't mind at all having to follow Sir Robert because he has really set it out so well and I hope to perhaps just fill a few of the gaps, if there are any.

Let me just say at the start that the UNFPA places a very special importance on this seminar here in the Pacific. I say that because there are several reasons. First, I think this is really the first-ever seminar of this kind in the Pacific and I think we can be proud of that and see it as the beginning. As Sir Robert has said, perhaps a little late, but at least we are getting started to make a much more concerted effort.

Second, the topic of this seminar, while it is applying to all age groups of the Pacific, is particularly meaningful and directed, I think, to the younger generation of the Pacific. And after all, it is really they who are the key to the future population trends of this region. And lastly of course, as Sir Robert has mentioned over and over again, whatever kinds of programmes we try to develop with you in this region, the most basic and fundamental parts of those programmes have got to be greater awareness, and more education of people as to the roles they have to play in the future.

Now just to take a little personal view-point on this, I see, as Co-ordinator for the UNFPA, many different kinds of projects going on throughout this region. But to me, the most challenging part of all this work is the educational side, and I say that because of a number of reasons. One is that there are so many possible types of approaches that you can, with your imagination, come up with, that it is challenging to think of those many types of approaches that you can use to educate the public and the young people of this region.

Secondly, the subject matter of population is so broad that it is an exciting venture because of that. Now just to look at the approaches that are possible. As all of you know, we are not just talking about formal school systems and how to build in the curriculum into primary,

secondary and higher levels of education, as important as that is, and as much as it needs to be done and as much as we want your help and ideas on how to do that. That is only one part of it. There are other approaches that we need also to consider. For example, the non-formal out-of-school education which is perhaps equally, if not more challenging, as to how do we get to people who are not in the schools to begin to educate them about population education, working side by side and becoming really an integral part of such things as youth vocational training programmes. I'm sure many of you have in your countries adult education programmes, women's skills training and improvement programmes. Some of these programmes, the broader ones, you may not even have yet in your countries although I think most of you do. But if you do not, perhaps this is also an opportunity to begin to promote those more general programmes as ways in which population education can be integrated and can move along with those, because I think they are very important vehicles for promoting population education.

Now, in terms of the subject matter of this topic, I think we're talking not just about size and growth of population. As important as that is, we're talking in much broader terms. We are talking about how does population relate to development, to the improvement of life and vice-versa.

How does development have an impact on population? That's really what we are talking about and what we really want to educate about. If we look at it in that sense there is again an unlimited list of subject matter that we can deal with. Just think about the distribution of population in Fiji or in the Solomon Islands or any country and how that relates to development opportunities that your people have. How they are distributed around your islands. That is a very important topic of population education.

Another one of course is, what is the relationship between improving the economic standards of people in the village and how many children they are going to decide to have. That's also another topic of population education, the relationship or link between child spacing and the better health of the mother and also the better health of the children and the family. The importance of involving and really getting community people to participate in any of these areas of population activities. All of these are subjects of population activities and many more. So you will have a chance in this seminar to deal with all of those subjects and to look at all the various approaches and to try to come up with some practical ideas of combing them, of using them, of putting them together into a workable programme which will enable the human resources of this region to realize more their individual and collective responsibilities and making the kinds of decisions that relate to population needs for development and improvement of life.

One last thing I would like to say is that, we are hoping and we are sure that out of this seminar will come a very important result. That is, it will enable you the participants, to contribute your practical

suggestions and your practical proposals as to kinds of population education projects that you think can best be suited and can be started up in your countries. We hope that UNFPA and Unesco and other U.N. agencies will be able to help play a role with you in fulfilling those projects and fulfilling those needs. But it's up to you to come out with those practical ideas. We see this seminar as the beginning of a continuing process of working together with you to bring about those kinds of practical programmes and projects in your own countries. So I want to wish you all the success in coming to grips with that task and I want to thank you again on behalf of UNFPA for participating in this very important work.

Thank you.

ANNEX VIII

REMARKS BY DR. R.C. SHARMA AT THE OPENING CEREMONY

Honourable Chief Guest, Sir Robert Munro, Dr. Maraj, Mr. Heyn, Your Excellency the Ambassador of the People's Republic of China, distinguished participants, ladies and gentlemen:

First of all on behalf of Unesco, my colleague Dr. Khan and on my own behalf, I have the pleasure of welcoming the distinguished participants for this seminar. We are very grateful to the Governments of Fiji, Papua New Guinea, Solomon Islands and Tonga for responding favourably to our invitation and sending a full delegation to this seminar. There are twenty-two delegates from the four countries, participating in this seminar-workshop.

Our Chief Guest and Mr. Heyn have covered almost every point and I might perhaps be repeating what has already been said by them.

Last year, at the initiative of the UNFPA Coordinator for the South Pacific and Papua New Guinea, my colleague Dr. Leonardo de la Cruz and myself visited four countries in the South Pacific which included Fiji, Kiribati, Solomon Islands and Tonga. The initial reaction of the countries which do not have any population education programme is a mixed one because population education is usually equated with family planning and/or sex education. Many countries are hesitant to teach family planning or sex education to children in schools. The same reaction was found in the countries we visited in the South Pacific but after we had discussions with the concerned officials in the Ministry of Education and other related ministries, all the four countries, without exemption, agreed in principle to the importance of introducing population education in schools. One of the common needs identified by all the four countries was the lack of trained personnel in population education at the national level. In order to meet this felt need of the countries, two activities have been planned:

1. a sub-regional seminar-workshop on population education, and
2. inter-country study visit.

We are grateful to UNFPA for providing financial support to these activities.

The main purposes of this seminar-workshop are to stimulate further interest and understanding of population education and to assist the participating countries to evolve proposals for national population education programmes for UNFPA funding. In addition, the strategies and

programmes at the regional level for backstopping national programmes will also be identified in this seminar. An inter-country study visit to four countries in Asia having national population education programmes has been planned in November this year. This will provide a first-hand experience to the key education officials from the participating countries.

The main concern of all the developing countries is to improve levels of living and enrich the quality of life of the people. There are at least four major problems which are now of a global concern. I would put them as Four Ps - Poverty, Population, Pollution and Peace. The problems of resources depletion and deterioration of the ecological systems can be subsumed under these four major problems although they are equally important problems. All these problems are interrelated but have a synergetic effect on the developmental efforts of the countries. As already mentioned by the Chief Guest, the recent Conference of Parliamentarians held in Colombo from 28 August to 1 September 1979 which was represented by sixty-two different national parliaments and organized by UNFPA also reaffirmed that population and development are inextricably bound together and that no population programmes should be considered in isolation from policies and plans on health, housing, education, employment, the environment and the use of resources. Equally there is increasing recognition that development programmes should reflect population policies.

Because of the awareness about the interrelationships between population and development many developing countries with high rates of population growth started population activities, including family planning, during the 1950s and 1960s but they have not shown equally good results because of a variety of factors including socio-cultural and religious values, lack of education, problems of communication and economic factors. The role of education in the solution of the population problem was recognized only about 8-9 years ago. Population education programmes in many developing countries are the response of the education system to the national concern for population issues. Another factor that is considered important is that more than 40 per cent of the population in the developing countries is below the age of 15 years. This young generation will constitute a major portion of adult population in the next few years. Their education at the formative years will be crucial in developing desirable skills, attitudes and behaviours relevant to the social problems including population. They should be equipped to take informed and rational decisions with regard to population and development issues. The students in the universities and colleges as well as children, youth and adults out-of-school are equally important audiences for providing population education integrated with other development programmes.

In Asia there are a number of countries (Bangladesh, Indonesia, Malaysia, Philippines, Republic of Korea, Sri Lanka and Thailand) which have national population education programmes in the formal education system which have been financially supported by UNFPA and technically backstopped by Unesco. Other countries are also in the process of developing

national programmes in population education. Some countries have also initiated population education programmes for the out-of-school youth and adults as a part of their ongoing development activities. The countries in Asia having population education programmes are using different strategies of curriculum development as well as of training of personnel according to their needs, requirements, resources and priorities.

The needs and requirements of the countries in the Pacific region may be different from those of Asia. During this seminar we hope that the strategies relevant to the countries in this region will be identified and will provide a basis for developing population education programmes at the national and regional levels.

Once again, I welcome all the participants to this seminar-workshop. I hope that you will have a very fruitful and enjoyable stay in Suva.

Thank you.

ANNEX IX

VOTE OF THANKS BY DR. ANSAR ALI KHAN AT THE OPENING CEREMONY

Honourable Chief Guest, Sir Robert Munro, Dr. James Máraj, Mr. Michael Heyn, His Excellency the Ambassador of China, guests and my dear participants.

I have a very pleasant duty to perform today to thank you all for sparing some time from your busy schedule to be here with us and guide us in our forthcoming proceedings during the next two weeks. I'm specially thankful to Sir Munro for providing us with a very wide scope and nature of population education. He has very rightly pointed out, time and again, the need to stress the concept of quality of life, while discussing population education. I would like to assure you, Sir, that we will keep in mind all the points which you have brought out and will try to work around the broader framework. Moreover, we shall attempt to come up with some sort of outline for the curricular contents promoting population education in the sub-region.

The present seminar-workshop was planned to provide orientation and training to personnel from the formal education sector. All the preparation including the nominations of participants to this seminar-workshop was made to achieve this objective. But later on based upon his wider knowledge and understanding of the South Pacific region and its needs, Mr. Michael Heyn, UNFPA Coordinator, asked us to widen the scope of this workshop by covering both in-school and out-of-school sectors. Therefore, on his recommendations we have included out-of-school population education in the proceedings of the seminar-workshop. But even today while going through the list of participants, one finds that most of the participants are coming from the formal education system because a change in the composition of the participants at this late stage was found extremely difficult. However, with the broadened scope of this population education workshop covering both in-school and out-of-school sectors as Mr. Michael Heyn pointed out earlier we will do our best to meet its objectives and try to come up with whatever operational framework of population education could be designed while operating within the given limitations.

I'm also thankful to the countries which have spared the participants to be here with us for these two weeks and at the end, on behalf of Unesco, UNFPA, Dr. Sharma and myself, I would like to place on record our deep sense of gratitude and thanks to the Vice-Chancellor and administration of the University and especially the School of Education in making excellent arrangements and providing us with all kind of support which is needed for running this type of seminar-workshop. I will be

failing in my duty if I don't thank Dr. Prem Udagama who has worked day and night over the weekends and if I may say so, we have learnt that he could not sleep last night because there were certain things which were not yet finished. From this single instance, one can imagine the sense of responsibility and devotion with which Dr. Udagama has worked for the preparation of this seminar-workshop. We are really thankful to him and the University authorities that provided us with his assistance in the organization of this seminar-workshop.